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- **Assoc. Prof. Marzena Samardakiewicz, M.A., Ph.D.**
  (Department of Paediatric Haematology and Oncology and Transplantology, Medical University of Lublin, Poland)
- **Prof. Marek Sanak, M.D., Ph.D.**
  (Department of Molecular Biology and Clinical Genetics, Jagiellonian University Medical College, Poland)
- **Prof. Martin Scholz, M.D., Ph.D.**
  (Neurosurgery, Klinikum Duisburg GmbH, Germany)
- **Assoc. Prof. Anna Semczuk-Sikora, M.D., Ph.D.**
  (Department of Obstetrics and Pathology of Pregnancy, Medical University of Lublin, Poland)
- **Dr. Beata Sikorska, M.D., Ph.D.**
  (Department Of Molecular Pathology and Neuropathology, Medical University of Lodz, Poland)
- **Assoc. Prof. Marcin Sibinski, M.D., Ph.D.**
  (Clinic of Orthopedisc and Pediatric Orthopedics, Medical University of Lodz, Poland)
- **Prof. Władysław Sienkiewicz, M.D., Ph.D.**
  (Second Department of Cardiology, Ludwik Rydygier Collegium Medicum in Bydgoszcz, Poland)
- **Assoc. Prof. Elżbieta Smolewska, M.D., Ph.D.**
  (Department of Pediatric Cardiology and Rheumatology, Medical University of Lodz, Poland)
- **Assoc. Prof. Jadwiga Snarska, M.D., Ph.D.**
  (Department of Surgery, University of Varmia and Masuria in Olsztyn, Poland)
- **Prof. Jolanta Slowikowska-Hilczer, M.D., Ph.D.**
  (Department of Andrology and Reproductive Endocrinology, Medical University of Lodz, Poland)
- **Prof. Krzysztof Słowiński, M.D., Ph.D.**
  (Division of Trauma, Burns and Plastic Surgery, Poznan University of Medical Sciences, Poland)
- **Assoc. Prof. Małgorzata Sokołowska-Wojdyło, M.D., Ph.D.**
  (Chair & Clinic of Dermatology, Venereology and Allergology, Medical University of Gdańsk, Poland)
- **Assoc. Prof. Dariusz Soszyński, M.D., Ph.D.**
  (Department of Neuroimmunology, Ludwik Rydygier Collegium Medicum in Bydgoszcz, Poland)
- **Assoc. Prof. Katarzyna Starska, M.D., Ph.D.**
  (Department of Otorhinolaryngology and Laryngological Oncology, Medical University of Lodz, Poland)
- **Prof. Krzysztof Strojek, M.D., Ph.D.**
  (Depatment of Internal Diseases Diabetology and Cardiometabolic Diseases, Silesiam Medical University Zabrze, Poland)
- **Assoc. Prof. Grzegorz Surkont, M.D., Ph.D.**
  (1st Department of Obstetrics and Gynecology, Medical University of Lodz, Poland)
- **Prof. Marek Synder, M.D., Ph.D.**
  (Clinic of Orthopaedics and Paediatric Orthopaedics, Medical University of Lodz, Poland)
- **Prof. Małgorzata Szelachowska, M.D., Ph.D.**
  (Department of Endocrinology, Diabetology and Internal Medicine, Medical University of Bialystok, Poland)
- **Prof. Krystyna Sztefko, M.D., Ph.D.**
  (Clinical Biochemistry Department of Pediatric Institute, Jagiellonian University Medical College, Poland)
- **Assoc. Prof. Jacek Śmigielski, M.D., Ph.D.**
  (Dep. of Thorax, General and Oncological Surgery, Medical University of Lodz, Poland)
- **Assoc. Prof. Jacek Tabarkiewicz, M.D., Ph.D.**
  (Department of Clinical Immunology, Medical University of Lublin, Poland)
- **Prof. Małgorzata Tafil-Klawe, M.D., Ph.D.**
  (Department of Physiology, Ludwik Rydygier Collegium Medicum in Bydgoszcz, Poland)
- **Dr. Monika Talarowska, Ph.D.**
  (Department of Adult Psychiatry, Medical University of Lodz, Poland)
- **Assoc. Prof. Dariusz Timler, M.D., Ph.D.**
  (Department of Emergency Medicine and Disaster Medicine, Medical University of Lodz, Poland)
- **Assoc. Prof. Krzysztof Tomasiewicz, M.D., Ph.D.**
  (Department of Infectious Diseases, Medical University of Lublin, Poland)

- **Prof. Lidia Usnarska-Zubkiewicz, M.D., Ph.D.**
  (Department of Haematology, Blood Neoplasms and Bone Marrow Transplantation, Wroclaw Medical University, Poland)
- **Prof. Jerzy Walocha, M.D., Ph.D.**
  (Department of Anatomy, Jagiellonian University Medical College, Poland)
- **Prof. Anna Wasilewska, M.D., Ph.D.**
  (Department of Pediatrics and Nephrology, Medical University of Bialystok, Poland)
- **Prof. Iwona Wawer, M.D., Ph.D.**
  (Department of Physical Chemistry, Medical University of Warsaw, Poland)
- **Prof. Łukasz Wicherek, M.D., Ph.D.**
  (Clinical Ward of Oncological Gynecology, Ludwik Rydygier Collegium Medicum in Bydgoszcz, Poland)
- **Prof. Mirosław Wielgoś, M.D., Ph.D.**
  (Department of Obstetrics and Gynecology, Medical University of Warsaw, Poland)
- **Prof. Henryk Witas, M.D., Ph.D.**
  (Department of Molecular Biology, Medical University of Lodz, Poland)
- **Dr. Edyta Wlaźlak, M.D., Ph.D.**
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- **Prof. Anna Wojas-Pelc, M.D., Ph.D.**
  (Department of Dermatology, Jagiellonian University Medical College, Poland)
- **Prof. Lucyna A. Wozniak, Ph.D.**
  (Department Structural Biology, Medical University of Lodz, Poland)
- **Prof. Mieczysław Woźniak, M.D., Ph.D.**
  (Department of Medical Laboratory Diagnostics, Wroclaw Medical University, Poland)
- **Prof. Jerzy Wranicz, M.D., Ph.D.**
  (Department of Electrocardiology, Medical University of Lodz, Poland)
- **Assoc. Prof. Tomasz Wróbel, M.D., Ph.D.**
  (Department of Haematology and Oncology, Wroclaw Medical University, Poland)
- **Prof. Maria Wróbel, Ph.D.**
  (Chair of Medical Biochemistry, Jagiellonian University Medical College, Poland)
- **Prof. Dimitri Yanko, M.D., Ph.D.**
  (Department of Rare Diseases, North-Western State Medical University named after I.I. Mechnikov, Saint-Petersburg, Russia)
- **Assoc. Prof. Beata Zalewska-Szewczyk, M.D., Ph.D.**
  (Department of Pediatrics, Oncology, Hematology and Diabetology, Medical University of Lodz, Poland)
- **Assoc. Prof. Marzena Zarzeczna-Baran, Ph.D.**
  (Department of Public Health & Social Medicine, Medical University of Gdańsk, Poland
  Wydział Nauk o Zdrowiu z Oddziałem Pielęgniarstwa i Instytutem Medycyny Morskiej i Tropikalnej, Gdański Uniwersytet Medyczny, Polska)
- **Assoc. Prof. Lidia Zawadzka-Głos, M.D., Ph.D.**
  (Department of Pediatric Otolaryngology, Medical University of Warsaw, Poland)
- **Assoc. Prof. Marcin Zawadzki, M.D., Ph.D.**
  (Department of Forensic Medicine, Wroclaw Medical University, Poland)
- **Prof. Zygmunt Zdrojewicz, M.D., Ph.D.**
  (Department and Clinic of Endocrinology & Diabetes, Wroclaw Medical University, Poland)
- **Prof. Krzysztof Zeman, M.D., Ph.D.**
  (Department of Paediatrics and Immunology, Medical University of Lodz, Poland)
- **Prof. Marzenna Zielinska, M.D., Ph.D.**
  (Department of Intensive Cardiac Care, Medical University of Lodz, Poland)
- **Dr. Rafał Zieliński, M.D., Ph.D.**
  (Department of Pediatric Otolaryngology, Audiology and Phoniatrics, Medical University of Lodz, Poland)
- **Prof. Danuta Zwolińska, M.D., Ph.D.**
  (Department of Pediatric Nephrology, Wroclaw Medical University, Poland)
- **Assoc. Prof. Małgorzata Zwolińska-Wcisło, M.D., Ph.D.**
  (Department of Gastroenterology, Hepatology and Infectious Diseases, Jagiellonian University Medical College, Poland)
- **Assoc. Prof. Agnieszka Żebrowska, M.D., Ph.D.**
  (Department of Dermatology and Venereology, Medical University of Lodz, Poland)
- **Prof. Ewa Żekanowska, M.D., Ph.D.**
  (Department of Hemostasis Disorder, Ludwik Rydygier Collegium Medicum in Bydgoszcz, Poland)

Thank you for participating Juvenes Pro Medicina 2014! We wish you great time!

Supervisor

Prof. Ewa Sewerynek, M.D., Ph.D.

MEDICAL UNIVERSITY OF LODZ

Chairman

Konrad Stawiski

Agenda for Thursday

Time (CEST)	THURSDAY (May 8, 2014)				
	ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 5
8:30-9:00	XXX	XXX	XXX	XXX	XXX
9:00-9:30	XXX	XXX	XXX	XXX	XXX
9:30-10:00	XXX	XXX	XXX	XXX	XXX
10:30-11:00	XXX	XXX	XXX	XXX	XXX
11:00-11:30	XXX	XXX	XXX	XXX	XXX
11:30-12:00	XXX	XXX	XXX	XXX	XXX
12:00-12:30	XXX	XXX	XXX	XXX	XXX
12:30-13:00	XXX	XXX	XXX	XXX	XXX
13:00-13:30	REGISTRATION (opening)				
13:30-14:00					
14:00-14:30	PUBLIC HEALTH	INTERNAL MEDICINE I	PSYCHIATRY AND PSYCHOLOGY	CASE REPORTS I	CASE REPORTS II
14:30-15:00					
15:00-15:30					
15:30-16:00					
16:00-16:30					
16:30-17:00					
17:00-17:30	NEUROLOGY AND NEUROSURGERY	HISTORY OF MEDICINE AND PHARMACY	XXX		
17:30-18:00			XXX		
18:00-18:30			XXX		
18:30-19:00	XXX		XXX	XXX	XXX
19:00-19:30	XXX		XXX	XXX	XXX
19:30-20:00	XXX	XXX	XXX	XXX	XXX
20:30-21:00	XXX	XXX	XXX	XXX	XXX
21:00-...	XXX	XXX	XXX	XXX	XXX
ANNOTATION:	JUVENES PRO ARTE exhibition in the hall & internet voting will start at 13:00.				

Check for latest agenda changes and announcements here:
http://goo.gl/nsS0pQ (or http://jpm.umed.pl)

Public Health

14:00	Welcome
14:10	Economic Implications of Anesthesia Consumption in Obese Patients *(Adamek Wioleta, Kaczorowska Adamina, Fiddick Corrine)*
14:20	The reasons of the lack of vaccination against influenza among patients from Pabianice *(Dorożyński Jakub, Maszke Marcin, Stasiak Agnieszka)*
14:30	Dry snuff in Poland - the scale of the phenomenon and its impact on human health. Population-based study in Polish Internet users (*Gawroński Maciej, Wandtke Tomasz, Łabejszo Anna, Wielikdzień Joanna, Maśloch Natalia, Herman Renata)*
14:40	The influence of of TV campaigns on health-care awareness of rural residents on the example of Rzeczyca region (*Masziar Aleksandra, Basiak Izabella, Posiak Tomasz*)
14:50	Reimbursement law in the eyes of policy makers healthcare system (*Nowicka Monika, Koligat Dorota, Paczkowska Anna, Nowakowska Elżbieta, Słodzińska Iwona, Skurzyńska Marzena)*
15:00	Knowledge and attitudes towards organ donation and transplantation among students of Lodz (*Pawłowicz Ewa*)
15:10	Evaluation of the patients' knowledge on the impact of medications of laboratory results (*Sidorkiewicz Iwona, Januszewska Joanna)*
15:20	Break
15:30	Analysis of health behavior undertaken by students of the Medical University of Lodz (*Surowiecki Michał, Kruszyńska Martyna, Cierniak Marcin, Kułak Cezary, Nowakowski Marcin)*
15:40	E-learning as a modern method of teaching of medical subjects - a pilot study *(Suwała Szymon, Pilko Maciej, Derka Michał, Surczyński Jerzy)*
15:50	Social evaluation of Polish health care system *(Suwała Szymon)*
16:00	Support vector machine with radial basis function kernel applied to search for facial tumors geographical environmental predilection *(Stawiski Konrad, Strzałka Alicja)*

Internal Medicine I

14:00	Welcome
14:10	Analysis of relationship between exercise training intensity and occurrence of herpes and respiratory infections in competitive level athletes *(Brzozowski Kamil, Jonakowski Mateusz, Gwardys Mikołaj, Kurowski Marcin)*
14:20	Opinions of nephrologists on the efficacy and tolerance of statins in chronic hemodialysis patients *(Budzisz Ewa, Serafin Anna)*
14:30	Factors affecting complications after biliary stenting and time to maintain the patency of plastic prostheses *(Bulska Weronika, Bonk Magdalena, Mańka Łukasz)*
14:40	The influence of of TV campaigns on health-care awareness of rural residents on the example of Rzeczyca region *(Masziar Aleksandra, Basiak Izabella, Posiak Tomasz)*
14:50	A survey of energy drink consumption patterns among students IV and V year faculty of medicine in Medical University of Lodz *(Chuda Anna, Salamon Anna)*
15:00	The correlation between the level of carbon monoxide and carboxyhemoglobin with cigarette smoking among the adult population of Lodz. The evaluation of anti-smoking education among cigarette smokers in Lodz *(Kroc Łukasz, Ćwiek Edyta)*

15:10	The number and classes of antihypertensive medications recommended for patients to achieve the appropriate blood pressure control by general practitioners *(Królikowski Jerzy, FIlipowicz Anna, Obirek Katarzyna, Ciok Dominika, Górczewska Bogumiła, Dymitruk Anna)*
15:20	The influence of pet ownership on health and physical activity in dialysis patients *(Kuban Magdalena, Królikowski Jerzy)*
15:30	Break
15:40	Eating habits of people during expeditions in the high mountains (*Majkowska Agata, Płatkowska Anna*)
15:50	Risk Factors for Early Mortality at Intensive Care Unit among Patients Undergoing Sustained Low-Efficiency Dialysis (*Nowakowska Maria, Małachowska Beata*)
16:00	Borrowing and sharing prescription medication among patients at different stages of chronic kidney disease *(Porwańska Ewa)*
16:10	The diagnostic value of selected acute phase proteins in the differential diagnosis of fluids from body cavities *(Sidorkiewicz Iwona, Sobolewska Monika)*
16:20	Evaluation of the safety and course during immunotherapy against Hymenoptera venom allergy *(Skorupa Dawid, Kołaczek Agnieszka)*
16:30	G protein-coupled receptor 30 expression in inflammatory bowel diseases patients *(Sobolewska Aleksandra, Włodarczyk Marcin)*
16:40	Analysis of the influence of cognitive disorders on the efficiency and safety of vitamin K antagonists treatment in patients with atrial fibrillation *(Zyzak Sandra, Krewko Łukasz)*

Psychiatry and Psychology

14:00	Welcome
14:10	The perception of the mentally ill people by Polish society *(Suwała Szymon, Derka Michał)*
14:20	Stigmatisation experienced by patients suffering from COPD *(Potoczna Anna, Puzio Tomasz, Płusa Bernarda)*
14:30	Comparison of the state of knowledge on psychoactive substances of medical and non-medical students *(Boroński Adam, Jagłowska Aleksandra, Kwapiszewska Aleksandra, Oszczygieł Michał, Rachubiński Paweł)*
14:40	Do anxiety and impulsivity affect more prone to depression *(Bulska Weronika, Bonk Magdalena, Seweryn Mariusz, Pilarz Łukasz)*
14:50	How young people perceive the psychiatrist *(Bulska Weronika, Bonk Magdalena, Pilarz Łukasz)*
15:00	The tendency to addiction depending on education *(Bulska Weronika, Bonk Magdalena, Pilarz Łukasz)*
15:10	Why do people want to change their appearance *(Bulska Weronika, Bonk Magdalena, Pilarz Łukasz)*
15:20	Break
15:30	Investigation of selected polymorphisms of ABCB1 gene in predisposition to depression development *(Jeleń Agnieszka, Rutkowski Jakub, Świechowski Rafał)*
15:40	Burnout syndrome and stress in a group of medical students *(Klata Łukasz, Kubiak Agnieszka, Czarnecka Anna, Płatkowska Anna, Niwald Marta, Ograczyk Alicja)*
15:50	Anxiety and health locus of control in patients with atrial fibrillation. Correlations of anxiety level and questionnaire data. Prospective study *(Jelonek Aleksandra, Jelonek Maciej)*

16:00	How do you cope with stress, doctor? Personality traits and styles of coping with stress among physicians *(Kwarta Paulina, Miśkowiec Dawid)*
16:10	Optimism as a protective factor against anxiety and depression in a group of gynecological patients - preliminary report *(Płatkowska Anna, Lkhagva Khaliunaa, Kolary Katarzyna, Ograczyk Alicja)*
16:20	Psychological and physical effects of cancer disease - a study of cancer adolescent patients and their families *(Wyroba Katarzyna, Zielecka Dominika, Janeczko Małgorzata)*

Case Reports I

14:00	Welcome
14:10	Disseminated Intravascular Coagulation in Gorham-Stout Syndrome: A Rare Complication in a Rare Disease (*Anber Hussain Sherazi, Farhan Saleem Ud Din, Inanna Alani, Amer Haneef)*
14:20	Difficulties of diagnosis in mandibulofacial dystosis with microcephaly associated with esophageal artresia and choanal artresia - comparison of two clinical cases *(Bloch Michał, Poltoranos Marta)*
14:30	Aspergillus sp - a difficult opponent in the fight for cure - a case report of two brothers with chronic granulomatous disease *(Janeczko Małgorzata)*
14:40	A boy with congenital cataract of undiagnosed cause *(Łaziński Łukasz)*
14:50	Rapid nodal metastases in young woman with thin(pT1a) skin melanoma-case report and the literature review *(Kuchareczko Artur, Nalepa Karina)*
15:00	Coexistence of different types of vascular anomalies in the same patient: Case series report *(Madoń Jakub)*
15:10	Long standing cyanosis in 3,5-year-old girl- case report *(Michalik Magdalena, Leszczyński Piotr, Pawliczak Filip)*
15:20	55-year-old male with non-ST segment elevation myocardial infarction with angiographically marginal sclerotic lesions *(Pawliczak Filip)*
15:30	Don't forget about tuberculosis - pediatric case reports (Pawlik Elżbieta, Kupiec Joanna)
15:40	Break
15:50	A difficult patient with "Dual Psychiatric Diagnosis" *(Pelczar Karol, Racinowski Maciej, Ogłodek Ewa, Araszkiewicz Aleksandra)*
16:00	Evaluation of the influence The Mirror Box Therapy on improving functions of the hand in a patient after stroke *(Prudło Arletta)*
16:10	Transcatheter closure of post-myocardial infarction ventricular septal defect *(Redzynia Beata, Gallus Magdalena)*
16:20	Non-specific gastrointestinal symptoms associated with systematic mastocytosis - case report *(Strzębała Konrad, Balcerak Magdalena, Broncel Marlena)*
16:30	Unilateral, bloody nipple discharge in a 4-month old boy-attempt of the treatment with l-ascorbic acid *(Tobór Ewa)*
16:40	14-year-old boy having Pemphigus foliaceus mistakenly diagnosed with Darier's disease - case report *(Trambowicz Kamil)*
16:50	Drug-induced agranulocytosis simulating the neoplastic process - a case report *(Wacławek Magdalena)*

17:00	Calcifications in subcutaneous tissue in extreme obese infant with features of Albright syndrome, disturbances of calcium phosphate product, subclinical hypothyroidism- early manifestation of pseudohypoparathyroidism type 1a *(Wilk Magdalena, Wilk Mateusz, Szwed Wojciech)*

Case Reports II

14:00	Welcome
14:10	Merkel Cell Carcinoma (MCC) - a case report *(Januszewska Joanna, Sidorkiewicz Iwona)*
14:20	Severe complications of Colles fracture – case report *(Lesman Jędrzej, Spałka Jakub)*
14:30	An Unusual Complication Resulting From an Invasive Intrauterine Therapy *(Lewandowska Sylwia)*
14:40	Kartagener's syndrome as a rare form of chronic rhinosinusitis with nasal polyps - case report (*Mazur Katarzyna, Bechtold Agata)*
14:50	Juvenile Idiopathic Arthritis systemic onset (sJIA) successfully treated with inhibitor IL-6 receptor (*Misiak Marta, Pajda Barbara, Pieczykolan Marcelina*)
15:00	Patient with vascular type od Ehlers-Danlos syndrome in gynecology *(Nowak Anna, Kapitułka Justyna)*
15:10	Anticoagulation therapy in therapeutic hypothermia - case report *(Nowakowska Maria, Szamborski Marek)*
15:20	Autism spectrum disorder in children *(Olszewska Laura, Kucza Aleksandra, Ogłodek Ewa, Araszkiewicz Aleksander)*
15:30	Gastrointestinal stromal tumor located in the uncinate process of the pancreas *(Pisarska Magdalena)*
15:40	Difficulties in the treatment of Obsessive-Compulsive Disorder (*Racinowski Maciej, Pelczar Karol, Ogłodek Ewa, Araszkiewicz Aleksander)*
15:50	Break
16:00	Churg Strauss syndrome as a rare cause of rhinosinusitis - a case report *(Samsel Wojciech, Stegienta Michał)*
16:10	Hemihepatectomy combined with preoperative chemotherapy as a novel treatment strategy for primary hepatic diffuse large B- cell lymphoma (DLBCL): a case report (*Skulimowski Aleksander)*
16:20	Arteriovenous malformation of maxilla and mandible in 7 year old girl – case report *(Słomczewski Dawid)*
16:30	Modern diagnostic and therapeutic techniques used in the treatment of septic shock caused by Legionella pneumophila *(Sowińska Paulina, Podlasek Mikołaj)*
16:40	Papillary fibroelastoma in patient with Kartagener syndrome – case report (*Szwed Wojciech, Wałaszek Michał, Kanas Jacek)*
16:50	Patent foramen ovale as cause of cerebrovascular accident – case report *(Szwed Wojciech, Wilk Magdalena)*
17:00	The empty scrotum in 2-month old boy *(Wzorek Katarzyna)*

Neurology and Neurosurgery

17:00	Welcome
17:10	DBS for Parkinson's disease treatment. Experience and results of interdisciplinary Silesian Centre for Parkinson's Disease Treatment in Katowice *(Bulska Weronika, Ostry Martyna, Prokop Adrianna, Bonk Magdalena, Pilarz Łukasz)*
17:20	Recurrence of cerebellopontine angle tumors many years after the end of treatment for central nervous system tumor- diagnostic riddle *(Bulska Weronika, Bonk Magdalena, Bartosik Tomasz, Pilarz Łukasz)*
17:30	Serum 25-hydroxyvitamin D deficiency in acute cerebral strokes' patients with and without carbohydrate metabolism disturbances in north-eastern part of Poland *(Maksymowicz Anna)*
17:40	The incidence of neurological complications in Systemic lupus erythematosus and the influence of antiphospholipid syndrome on their course *(Walczak Agata, Lustyk Magdalena, Spyra Zofia, Rusin Małgorzata, Kuszmiersz Piotr)*
17:50	Pharmaco-EEG based assessment of the topiramate and zonisamide influence on alcohol witdrawal syndrome development and course in rabbits *(Walenciak Anna, Wiesner Agnieszka, Zwierzyńska Ewa)*
18:00	Parallel physical examination and EHR generation using novel SISDS methodology. Is it a promising perspective? Initial evaluation of proprietary software *(Stawiski Konrad, Strzałka Alicja)*
18:10	QuickDASH outcome assessment of peripheral nerves' isografts of the upper extremity: a cross-sectional telephone survey *(Stawiski Konrad, Rudzki Jan, Strzałka Alicja)*

History of Medicine and Pharmacy

17:00	Welcome
17:10	Willem Johan Kolff - the father of hemodialysis. The development of hemodialysis since the Second World War until today *(Błaszczyk Kinga, Porwańska Ewa)*
17:20	Selected health problems of women in Lodz at the turn of the 19th and 20th century *(Dłubek Justyna)*
17:30	An outline of the historical development of parenteral nutrition *(Kuliś Barbara)*
17:40	Sour and Sweet History of Sulphonylurea Treatment in Diabetes *(Małachowska Beata, Tomasik Bartłomiej, Strzałka Alicja, Piegat Aleksandra, Stawiski Konrad, Miśkowiec Dawid)*
17:50	History of diabetes *(Moroz Mateusz)*
18:00	The medical staff of the Litzmannstadt Ghetto – a battle against the odds and the issue of ethics *(Pakalska Małgorzata)*
18:10	To the eye of the artist, that is to follow a scent of Down syndrome in selected iconographic sources since 2nd BC to 18th AD. From norm to pathology *(Peła Zuzanna, Chudzyńska Małgorzata)*
18:20	The Devil's Laboratory *(Zdanowicz Paula)*
18:30	Assessment of hydatid diseases' treatment in XIX century: study of 7 cases *(Strzałka Alicja, Piegat Aleksandra, Małachowska Beata, Stawiski Konrad, Tomasik Bartłomiej, Miśkowiec Dawid)*

Agenda for Friday

Time (CEST)	FRIDAY (May 9, 2014)				
	ROOM 1	ROOM 2	ROOM 3	ROOM 4	ROOM 5
8:30-9:00	XXX	XXX	XXX	XXX	XXX
9:00-9:30	XXX	XXX	XXX	XXX	XXX
9:30-10:00	XXX	XXX	XXX	XXX	XXX
10:30-11:00	XXX	XXX	XXX	XXX	XXX
11:00-11:30	XXX	WORKSHOPS "ECHO" (Prof. Piotr Lipiec, M.D., Ph.D.)	XXX	XXX	XXX
11:30-12:00	XXX		XXX	XXX	XXX
12:00-12:30	XXX		XXX	XXX	XXX
12:30-13:00	XXX		XXX	XXX	XXX
13:00-13:30	ONCOLOGY	INTERNAL MEDICINE II	BASIC SCIENCE	HEMATOLOGY	GYNECOLOGY AND OBSTETRICS
13:30-14:00					
14:00-14:30					
14:30-15:00					
15:00-15:30					
15:30-16:00					
16:00-16:30					
16:30-17:00					
17:00-17:30	WORKSHOPS "Role of glucose metabolism in pathogenesis of neurodegenerative disorders" (English only, Dr. Ali Jawaid, M.D.)	XXX	WORKSHOPS "Profesjonalizm w medycynie. Lekarze a serwisy społecznościowe" (Dr. Janusz Janczukowicz, M.D., Ph.D.)	WORKSHOPS by ACADEMIC CAREERS OFFICE of the Medical University of Lodz	LANGUAGE WORKSHOPS by SORBONA (language school)
17:30-18:00		XXX			
18:00-18:30		XXX			
18:30-19:00	WORKSHOPS "Epigenetic regulation of metabolism by early life stress in mammals and its transgenerational effects" (English only, Dr. Ali Jawaid, M.D.)	XXX			
19:00-19:30		XXX			
19:30-20:00		XXX			
20:30-21:00	XXX	XXX	XXX	XXX	XXX
21:00-...	XXX	XXX	XXX	XXX	XXX
ANNOTATION:					

Check for latest agenda changes and announcements here:
http://goo.gl/nsS0pQ (or http://jpm.umed.pl)

Oncology

13:00	Welcome
13:10	Birth weight and risk of cancer in childhood *(Gul Alicja, Matwiej Marcelina, Gwardys Mikołaj)*
13:20	The expression of MMP-2 and MMP-7 proteins in pancreatic ductal carcinoma *(Januszewska Joanna, Sidorkiewicz Iwona)*
13:30	Estimation of expression level and 3435 polymorphism of ABCB1 gene in patients with stomach cancer *(Klatte Karolina, Kubera Lena)*
13:40	Evaluation of prognostic factors for survival in patients treated with stereotactic radiosurgery *(Loga Karolina, Wójcik Bartosz)*
13:50	*The -5 A/G single nucleotide polymorphism in the core promoter region of MT2A and its effect on allele-specific gene expression and Cd, Zn and Cu levels in laryngeal cancer (Nestorowicz Joanna, Kolary Katarzyna, Pomykała Agnieszka, LkhagvaKhaliunaa, Miazga Jakub)*
14:00	*In silico identification of signaling pathways in esophageal squamous cell carcinoma, gastric and colorectal cancer using available genomic data (Orzechowska Magdalena)*
14:10	Break
14:20	Mobile phone base stations, air pollution and childhood cancer incidence – is there a correlation or it is just another urban legend *(Roszkiewicz Justyna, VodopyanovaYevgeniya, Bobeff Katarzyna)*
14:30	Inhibition of Epidermal Growth Factor Receptor (EGFR) and Human Epidermal Growth Factor Receptor 2 (HER2) expression in Non Small Cell Lung Cancer (NSCLC). Evaluation of the therapeutic potential *(Simińska Edyta, Wandtke Tomasz, Wielikdzień Joanna, Goede Arkadiusz, Herman Renata)*
14:40	The Lys751Gln polymorphism of XPD gene and risk of colorectal cancer in the Polish population *(Szymczak Izabela)*
14:50	Expression of sVCAM and SLUG in laryngeal carcinoma – the proteins which determinate invasiveness of the tumor *(Tomaszewski Mateusz, Lkhagva Khaliunaa, Pomykała Agnieszka, Nestorowicz Joanna, Kolary Katarzyna)*
15:00	Expression of interleukin-27 (IL-27) in mononuclear cells after exposition to lung cancer cells *(Wielikdzień Joanna, Wandtke Tomasz, Gawroński Maciej, Maśloch Natalia, Łabejszo Anna)*
15:10	"In search of lost time" - impact of various factors on rapidity of cancer diagnosis *(Wyroba Katarzyna, Zielecka Dominika, Janeczko Małgorzata)*

Internal Medicine II

13:00	Welcome
13:10	Expression of transforming growth factor-beta and its receptor in patient's lower airways with the selected interstitial lung diseases *(Fonk Karolina, Wielikdzień Joanna, Wandtke Tomasz, Łabejszo Anna)*
13:20	Pol Sleep Heart Study - Sleep Apnea in patients with stable coronary artery disease *(Berner Joanna)*
13:30	The effect of TNFalpha inhibitors on the health – related quality of life in patients with Crohn's disease *(Kantor Dawid, Krucka Marta, Kawalec Mariusz)*

13:40	Long term follow up of patients with minimal change disease and focal segmental glomerulosclerosis *(Małyska Aneta, Wysocka Kamila, Mazur Katarzyna)*
13:50	Long term follow up of patients with lupus nephritis (*Małyska Aneta, Wysocka Kamila, Mazur Katarzyna)*
14:00	Comorbidities and polypharmacy among the students of Academy of Healthy Ageing (*Mikulski Damian, Mikulska Marlena, Pietrzyk Małgorzata, Adamska Emilia)*
14:10	Basic clinical variables change the chance of positional vs non-positional obstructive sleep apnea syndrome *(Mokros Łukasz, Franczak Łukasz, Spałka Jakub, Dębicka Aleksandra, Kuczyński Wojciech, Gruchała Aneta)*
14:20	Relation between obstructive sleep apnea syndrome and blood pressure *(Mokros Łukasz, Franczak Łukasz)*
14:30	Break
14:40	Dermathological autoimmunologically based diseases - the diagnostic methods analysis *(Nalepa Karolina, Krawczyk Paulina, Gos Katarzyna)*
14:50	Sleep disturbances among medicine students in Poland *(Spałka Jakub)*
15:00	Evaluation of knowledge of electrocardiograms among doctors during specialization in internal medicine or cardiology and medical students of the Faculty of Medicine *(Urban Artur, Sula Ewelina)*
15:10	Epworth Sleepiness Scale as a predictor of obstructive sleep apnea syndrome *(Wiśniewska Karolina, Oset Magdalena, Szyda Sylwia, Reszka Kacper)*
15:20	Diverticulitis among patients admitted to Department of Digestive Tract Diseases in Medical University Hospital in Łódź, Poland - a retrospective study *(Zatorski Hubert)*

Basic Science

13:00	Welcome
13:10	Differentiation of induced pluripotent stem cells (iPS) into insulin-producing cells using a combination of molecules *(Drozd Anna)*
13:20	Confirmation of spontaneous senescence occurrence in cells of glial tumor origin *(Janik Karolina)*
13:30	ABCG2 gene, its expression level and a potential association with gastric ulcer disease *(Krygier Adrian, Szmajda Dagmara)*
13:40	Evaluation of the total body water content by bioimpedance method - comparative analysis with the anthropometric predictors *(Lorenz Maciej, Biniaś Marcin, Kulesza Jakub, Nawarycz Dorota)*
13:50	Antidepressant-like activity and the influence on cortisol level of HBK-10 after chronic treatment and in the mouse model of depression induced by corticosterone *(Malikowska Natalia, Grzywa Anna, Wełna Elżbieta, Klęczar Katarzyna, Kuklewicz Sonia)*
14:00	Antinociceptive action of a dimeric enkephalin peptide, biphalin, in the mouse models of visceral pain: new potential treatment of abdominal pain associated with inflammatory bowel diseases *(Pilarczyk Andrzej, Jonakowski Mateusz, Salaga Maciej, Sobczak Marta)*
14:10	Chemotherapy with betulinic acid and cisplatin enhanced by electroporation in human melanoma cells *(Piłat Justyna, Kulbacka Julita, Choromańska Anna)*
14:20	Assesment of IDH1 mutant (R132H) influence over the astrocytic cell lines *(Rosiak Kamila)*

14:30	Impact of Sox2 on EGFR and EGFRvIII expression in DK-MG cell *(Siejka Paulina)*
14:40	Break
14:50	Differentiation of induced pluripotent stem cells into neural stem cells and investigation of their potential to further differentiate into neurons, astrocytes and oligodendrocytes *(Smolarz Maciej)*
15:00	The comparison of medical and medical rescue students knowledge of rules and practical skills in the interpretation of electrocardiography *(Sula Ewelina, Urban Artur)*
15:10	Association of 54896 C/T polymorphism of BLM gene with the risk of type 2 diabetes mellitus in Polish population *(Szymczak Izabela)*
15:20	Association of the Lys939Gln polymorphism of XPC gene with risk of colorectal cancer in the Polish population *(Szymczak Izabela)*
15:30	Effect of Lipid Modulator Genes Does not Differ Between Monogenic and Autoimmune Diabetes in Children *(Tracz Adam, Madzio Joanna, Małachowska Beata)*
15:40	Increased expression of WSX1 on alveolar lymphocytes (AL) in patients with non-small cell lung cancer (NSCLC) confirms the strong antitumor activity of Interleukin 27 (IL27) *(Wandtke Tomasz, Wielikdzień Joanna, Maśloch Natalia, Fonk Karolina)*
15:50	Experimental colitis in mice is attenuated by topical administration of chlorogenic acid *(Zatorski Hubert, Sałaga Maciej, Sobczak Marta, Piechota-Polańczyk Aleksandra)*

Hematology

13:00	Welcome
13:10	Prognostic value of copy number variations within 9p21 region in pediatric acute lymphoblastic leukemia (ALL) *(Braun Marcin, Tomasik Bartłomiej)*
13:20	Does treatment deferral in intensive phase of therapy affect the prognosis in children treated for acute lymphoblastic leukemia *(Krajewska Karolina, Braun Marcin, Tomasik Bartłomiej, Suska Anna, Więch Łukasz)*
13:30	When should we treat children with prolonged activated partial thromboplastin time? - analysis of causes and indications for treatment *(Krychowiak Katarzyna, Szymbor Katarzyna)*
13:40	Treatment results and prognostic factors in patients with secondary acute myeloid leukemia *(Kuydowicz Marta)*
13:50	The analysis of factors modulating methotrexate treatment in children with acute lymphoblastic leukemia *(Orczyk Krzysztof, Jezierna Joanna, Strumiłło Magdalena)*
14:00	Differences in L-asparaginase treatment in pediatric and adult patients with Acute Lymphoblatic Leukemia *(Wrona Ewa)*
14:10	Break
14:20	Can we avoid anaemia in children? - risk factors of iron deficiency in children under two years of age *(Wyroba Katarzyna, Zielecka Dominika, Janeczko Małgorzata)*
14:30	„Leukemia as a silent killer" - Time to diagnosis and first symptoms of acute leukemia in children *(Zielecka Dominika)*
14:40	"To survive first 30 days" - epidemiology and infectious complications in the early period after HSCT*(Zielecka Dominika, Janeczko Małgorzata)*

Gynecology and Obstetrics

13:00	Welcome
13:10	Evaluation of the potential risk of pregnant women' exposure to toxoplasma's oocysts or tissue cysts and estimation of the awareness of threat connected with it *(Frachowicz Karolina, Skibińska Milena, Banasiak Ewelina)*
13:20	Current meaning of hormonal therapy in Polish women being in perimenopausal age *(Grzeszczak Elżbieta, Rucińska Jowita, Strusińska Patrycja)*
13:30	Antiphospholipid antibodies as a prognostic factor of pregnancy failure in Antiphospholipid Syndrome *(Lustyk Magdalena, Walczak Agata, Spyra Zofia, Rusin Małgorzata, Kuszmierz Piotr)*
13:40	Evaluation of antenatal anxiety level and its contributing factors *(Kapitułka Justyna, Nowak Anna)*
13:50	The course of singleton pregnancy and perinatal outcome after in vitro fertilisation (IVF) *(Krowicka Maria, Sęp Milena)*
14:00	Severe surgical states in pregnancy *(Mikosiński Paweł, Bauer Katarzyna)*
14:10	Clinical symptoms in gynecologic cancers *(Misiewicz Anna, Misiewicz Piotr)*
14:20	Vasectomy, male involvement in family planning in Rwanda *(Ndashimye Serge Jean Paul, Sibomana Emmanuel)*
14:30	Break
14:40	Assessment of health status of infants born of in vitro fertilization (IVF) compared to naturally conceived ones *(Soja Malwina, Masternak Martyna)*
14:50	Evaluation of the health of prematurely born children in the moment of the discharge from Neonatal Pathology and Prematurity Complications Clinic *(Stodulska Paulina)*
15:00	The emergency peripartum hysterectomy *(Szymczyk Karolina, Łatkowska Sylwia)*
15:10	Sexual Function of Primiparous Women After Cesarean Section and Normal Vaginal Delivery *(Tomczyk Jolanta, Zimna Kinga)*
15:20	Evaluation of L-arginine treatment of fetus hypotrophy *(Wójcicka Milena, Dworak Mateusz)*

Agenda for Saturday

<table>
<tr><td>Time (CEST)</td><td colspan="4">SATURDAY (May 10, 2014)</td></tr>
<tr><td></td><td>ROOM 1</td><td>ROOM 2</td><td>ROOM 3</td><td>ROOM 4</td></tr>
<tr><td>9:00-9:30</td><td rowspan="8">SURGERY</td><td rowspan="4">PEDIATRICS I</td><td rowspan="4">CARDIOLOGY AND CARDIOSURGERY</td><td rowspan="4">OTOLARYNGOLOGY AND OPTHALMOLOGY</td></tr>
<tr><td>9:30-10:00</td></tr>
<tr><td>10:30-11:00</td></tr>
<tr><td>11:00-11:30</td></tr>
<tr><td>11:30-12:00</td><td rowspan="4">PEDIATRICS II</td><td rowspan="4">ENDOCRINOLOGY</td><td rowspan="4">DOCTORALS' STUDENTS SESSION</td></tr>
<tr><td>12:00-12:30</td></tr>
<tr><td>12:30-13:00</td></tr>
<tr><td>13:00-13:30</td></tr>
<tr><td>13:30-14:00</td><td rowspan="8">WORKSHOPS "Students' Reviews"</td><td rowspan="8">WORKSHOPS "Surgical Suturing"</td><td rowspan="8">WORKSHOPS "Gastroenterology"</td><td rowspan="8">WORKSHOPS "Applied biostatistics" (English only, Dr. Ali Jawaid, M.D.)</td></tr>
<tr><td>14:00-14:30</td></tr>
<tr><td>14:30-15:00</td></tr>
<tr><td>15:00-15:30</td></tr>
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<tr><td>16:00-16:30</td></tr>
<tr><td>16:30-17:00</td></tr>
<tr><td>17:00-17:30</td></tr>
<tr><td>17:30-18:00</td><td colspan="4" rowspan="5">CLOSING CEREMONY
▪ awards;
▪ closing lecture by Assoc. Prof. Wojciech Fendler, M.D., Ph.D.;
▪ presentation of the best 5 papers;
▪ awards for Students' Scientific Groups;</td></tr>
<tr><td>18:00-18:30</td></tr>
<tr><td>18:30-19:00</td></tr>
<tr><td>19:00-19:30</td></tr>
<tr><td>19:30-20:00</td></tr>
<tr><td>20:30-21:00</td><td>XXX</td><td>XXX</td><td>XXX</td><td>XXX</td></tr>
<tr><td>21:00-...</td><td>XXX</td><td>XXX</td><td>XXX</td><td>XXX</td></tr>
<tr><td></td><td colspan="4">OFFICIAL CLOSING BANQUET
Holiday Inn (229/231 Piotrkowska St., Łódź)</td></tr>
<tr><td>ANNOTATION:</td><td colspan="4">JUVENES PRO ARTE exhibition in the hall & internet voting will end at 13:00. The banquet will take place in Holiday Inn (229/231 Piotrkowska St., Łódź).</td></tr>
</table>

Check for latest agenda changes and announcements here:
http://goo.gl/nsS0pQ (or http://jpm.umed.pl)

Surgery

9:00	Welcome
9:10	Venous malformations – results of surgical treatment in patients survey *(Bańcyr Michał)*
9:20	Femoral hernias in clinical practice *(Czeczotka Michał, Pytel Wojciech)*
9:30	Comparative analysis of types and circumstances of deaths associated with the use of sharp, sharp-pointed, pointed or sharp-edged tools based on medical autopsies in 1965-1970 and 2005-2010 *(Goździk Agnieszka, Leśniak Beata)*
9:40	Analysis of injuries in professional volleyball players *(Jóźwik Michał, Lesman Jędrzej)*
9:50	Are student an endangerment for the patients? – Complience with asepsis and antisepsis rules by students of the Medical University in Lodz *(Kasiarz Anna, Muszewska Marta)*
10:00	Atypical pancreatic tumors: retrospective analysis of 530 patients operated on for pancreatic tumor in the Department of General and Transplant Surgery *(Klata Łukasz, Kotecki Mateusz)*
10:10	Peculiarities of reparative processes of compression embolic fistula with collagen rings *(Koush Tatsiana, Salmina Anastasiya, Lukashevich Julia, Sakharevich Anastasiya, Nabahez Aliaksandra)*
10:20	Analysis of clinical and pathological factors in patients with breast cancer *(Kuchareczko Artur, Kaczmarek Adam)*
10:30	Break
10:40	The assessment of knowledge and rapidity of FAST examination among students of Medical University in Lodz *(Leśniak Edyta, Gucwa Paulina, Morawiec Joanna)*
10:50	Experimental characteristics of tightness of compressive anastomosis with collagen rings *(Lukashevich Julia, Salmina Anastasiya, Koush Tatsiana, Sakharevich Anastasiya, Nabahez Aliaksandra)*
11:00	Laparoscopic monitor – where should be placed? *(Pawełczak Dariusz, Walczak Dominik, Piotrowski Piotr, Jędrzejczyk Adam, Trzeciak Piotr)*
11:10	Mean platelets volume in diagnosis of acute appendicitis *(Pawełczak Dariusz, Walczak Dominik, Piotrowski Piotr, Żółtaczek Agata)*
11:20	Effects of preoperative oral carbohydrate loading on the postoperative cortisol level and HOMA-IR index as indicators of perioperative stress level *(Pisarska Magdalena, Łaskawska Anna)*
11:30	Enhanced Recovery after Colorectal Surgery in the elderly *(Pisarska Magdalena, Dyrała Anna)*
11:40	Influence of surgery and hospitalization on patients dietary habits *(Pomykacz Piotr)*
11:50	Break
12:00	The state of nonspecific resistance of the organism after the formation of colonic compressive embolic fistula with collagen *(Sakharevich Anastasiya, Salmina Anastasiya, Koush Tatsiana, Lukashevich Julia, Nabahez Aliaksandra)*
12:10	Excision of BCC based on one dimension – is it (bio)logical? *(Strzałka Alicja, Stawiski Konrad)*
12:20	Restoration of the intestinal continuity – risk factors *(Włodarczyk Marcin, Kasprzyk Jakub, Sobolewska Aleksandra)*
12:30	Coexistence of histopathological findings associated with antrial metaplasia of gallbladder *(Stawiski Konrad, Strzałka Alicja)*
12:40	Retention sutures in patients after major abdominal surgery *(Włodarczyk Marcin, Sobolewska Aleksandra)*

Pediatrics I

9:00	Welcome
9:10	The clinical course of urolithiasis diagnosed in children under 3 years *(Aaslid Adriana)*
9:20	Treatment of respiratory tract infections in children aged three to six from a primary care physician viewpoint *(Berner Sylwia, Stolarska Hanna)*
9:30	Exacerbation of negative attitudes to the legitimacy of mandatory vaccination in Polish society *(Biesiada Paweł, Łopata Ewelina)*
9:40	Incidence of partial remission depending on the age at onset of disease in children with type 1 diabetes *(Bobeff Katarzyna, Pyziak Aleksandra)*
9:50	The relationship between use of stimulants in and glycemic control adolescents with diabetes type 1 *(Bobeff Katarzyna, Malewska Kamila, Węgrewicz Krzysztof, Przudzik Maciej)*
10:00	Use of stimulants in adolescents with diabetes type 1 – questionnaire study from three departments *(Bobeff Katarzyna, Malewska Kamila, Węgrewicz Krzysztof, Przudzik Maciej)*
10:10	The analysis of antihypertensive treatment in dialysed children in Poland in 2013 *(Hincz Karolina, Tkaczyk Marcin)*
10:20	Break
10:30	Many faces of PHACE syndrome *(Janiszewski Marcin)*
10:40	Growth delays observed in children treated because of Acute Lymphoblastic Leukemia *(Kuchareczko Artur, Nalepa Karina, Pyziak Aleksandra)*
10:50	Clinical aspects of bile reflux in children *(Kupiec Joanna, Pawlik Elżbieta)*
11:00	Exercise-induced bronchospasm in overweight adolescent children *(Malewska Kamila, Kaczmarek Adam)*
11:10	The Diabetic Platelets – Big, Bad and Dangerous *(Małachowska Beata, Tomasik Bartłomiej)*

Cardiology and Cardiosurgery

9:00	Welcome
9:10	Early repolarization variant in ECG and the clinical characteristics of syncopal patients with regard to the cardiac clinic *(Chuda Anna)*
9:20	Comparison of two-dimensional and three-dimensional speckle tracking echocardiography for the assessment of myocardial viability *(Ćwiek Edyta)*
9:30	Selected biochemical parameters and blood morphology in prognostic evaluation of the effect of cardiac rehabilitation after STEMI *(Demitraszek Adrian, Podolski Piotr)*
9:40	Symptoms suggesting cardiovascular system disorders and qualification for sport participation in ultramarathon runners *(Maszke Marcin, Stasiak Agnieszka, Wranicz Krzysztof, Krajka Marta, Stolarczyk Wojciech, Kozioł Dagmara)*
9:50	Do new CRT guidelines change the number of patients qualified for this procedure *(Nadel Maciej, Bojczuk Przemysław, Sajdok Mateusz)*
10:00	Do the different methods of QRS duration measurement have impact on qualification to cardiac resynchronization therapy *(Paszowski Kamil, Rek Marta, Mokros Łukasz, Będkowski Jan, Miller Adam)*
10:10	Break

10:20	Is it possible to predict the beneficial effect of Cardiac Resynchronization Therapy (CRT) on the basis of ECG *(Rek Marta, Paszowski Kamil, Mokros Łukasz, Pluta Wojciech)*
10:30	Myocardial injury after endovascular treatment in patients with critical lower limbs ischemia *(Suska Anna, Maga Mikołaj, Pieczka Patrycja, Wachsmann Agnieszka, Wolny Agnieszka, Bartyzel Sylwia)*
10:40	Would you like cup of tea or coffee? - Impact of tea and coffee on blood pressure *(Suwała Szymon, Morczyński Krzysztof, Burda Kamil)*
10:50	Type 2 Diabetus Mellitus is an important risk factor for Sudden Cardiac Arrest in patients with STEMI *(Trzciński Przemysław, Jaskowski Mateusz, Nowak Justyna, Pawlus Małgorzata)*

Otolaryngology and Ophthalmology

9:00	Welcome
9:10	Does laser vision correction still raise concerns among patients with vision defects *(Bulska Weronika, Bonk Magdalena, Pilarz Łukasz)*
9:20	Subjective and objective sleep quality in patients snoring before and after ENT operations *(Bulska Weronika, Pilarz Łukasz)*
9:30	Analysis of Th17 cell activation and expression of EP3 receptor as indicators of aggressiveness in laryngeal cancer *(Kolary Katarzyna, Pomykała Agnieszka, Lkhagva Khaliunaa, Nestorowicz Joanna)*
9:40	Activity of HEX A in the diagnosis of salivary gland dysfunction in morbid obesity *(Maciejczyk Mateusz)*
9:50	Evaluation of the character and intensity of symptoms after Nasal Provocation Test in patients with allergic rhinitis *(Malewska Kamila, Pyziak Aleksandra, Szostakowska Aleksandra)*
10:00	Does tonsils removal help obese children to lose weight *(Strzałka Alicja, Stawiski Konrad, Piegat Aleksandra)*

Pediatrics II

11:30	Welcome
11:40	Lymphadenopathy - is it always neoplastic disease *(Dudkiewicz Anna, Nowacka Nina, Bednarczyk Mateusz)*
11:50	Comparative analysis of the types, causes and circumstances of child deaths based on autopsy studies from the years 1965-1967, 1985-1987 and 2005-2007 *(Grabowski Przemysław, Kartasiński Michał)*
12:00	Effects of X chromosome abnormalities on the response to growth hormone therapy in children with Turner syndrome *(Kasprzyk Justyna, Włodarczyk Marcin, Głusińska Sylwia, Sobolewska Aleksandra)*
12:10	Thyroid cancer and hypothyroidism-risk factor assessment of severe complications affecting the thyroid gland and appearing in children after cancer treatment *(Krajewska Karolina, Tomasik Bartłomiej, Braun Marcin)*
12:20	Complement factor H autoantibodies B cell epitope analysis in autoimmune haemolytic uremic syndrome *(Trojnár Eszter)*

12:30	Coronary arteries anomalies in children with transposition of the great arteries after switch operation *(Sobczak Katarzyna)*
12:40	The state of knowledge of patients' parents of the Department of Pediatrics Propedeutics and Metabolic Bone Diseases about prevention and treatment of metabolic bone diseases *(Zdanowicz Paula, Moroz Mateusz)*
12:50	Break
13:00	Diagnostic difficulties of neuroblastoma and nephroblastoma *(Zielecka Dominika, Janeczko Małgorzata, Kupczyńska Justyna)*
13:10	Enlarged lymph nodes = red flag? – epidemiology and diagnosis of lymphadenopathy in children *(Zielecka Dominika)*

Endocrinology

11:30	Welcome
11:40	Clinical characteristic of children and adolescents with IgA deficiency and type 1 diabetes mellitus *(Ancuta Marta, Zagrodny Dagmara, Tomasik Bartłomiej)*
11:50	Effects of vitamin D supplementation in a population of young, healthy women with deficiency of vitamin D *(Gruchała Aneta, Wiszowaty Oskar, Kuczyński Wojciech, Ptaszek Aleksandra, Cieślak Karol)*
12:00	Correlation between anti-thyroid peroxidase antibodies levels and final histopathology examination in patients with thyroid gland disorders *(Grzegory Anna)*
12:10	Epidemiology of primary hyperparathyroidism in patients hospitalized at Department of Endocrinology and Metabolic Diseases Medical University of Lodz *(Hofman Aleksandra, Łukasiak Katarzyna, Duchnowska Magdalena, Marczuk Katarzyna)*
12:20	Education in type 1 diabetes mellitus as a challenge for children, their parents and doctors *(Janeczko Małgorzata, Kowalczyk Karolina, Kordas Hanna)*
12:30	Analysis of "hygienic theory" of chronic diseases in patients with type 1 diabetes in population of Lodz region *(Lesman Jędrzej)*
12:40	The role of ultrasonography in diagnostics of subacute thyroiditis – review of literature and retrospective analysis ultrasound imaging reports *(Mokrowiecka Izabela, Zielińska Ewelina, Uzarek Agata)*
12:50	Frequency of severe hypoglycemia in children with type 1 diabetes *(Strumiłło Magdalena, Woźniak Anna)*
13:00	Break
13:10	A systematic review to assess the relation between metabolic control of type 1 diabetes mellitus (T1DM) in paediatric patients and targeted guideline values of HbA1c among different regions worldwide *(Tomasik Bartłomiej, Braun Marcin, Wrona Ewa)*
13:20	Prader Willi Syndrome and growth hormone therapy: valuable effects and adverse events *(Wilk Małgorzata, Wzorek Katarzyna, Tobór Ewa, Dejniak Barbara)*
13:30	Autoimmune Profiling of MODY2 and Wolfram Syndrome *(Wrona Ewa)*
13:40	Metastases to the thyroid gland - insignificant problem in patients with cancer *(Wysocka Karolina, Małyska Aneta, Zadworny Damian)*

Doctorals' Students Session

11:30	Welcome
11:40	The comparative analysis of the combination efficiency of acetylcysteine with melatonin in rats with gentamicin-induced nephropathy *(Barysenak Volha)*
11:50	Differentiated thyroid cancer in children and adolescent *(Houda Sakri)*
12:00	Can acute gastric ulcers be prevented by carbon monoxide *(Jasnos Katarzyna, Magierowski Marcin, Kwiecień Sławomir, Brzozowski Tomasz)*
12:10	Hydrogen sulphide (H2S) in gastroprotection against water immersion and restraint stress-induced gastric lesions *(Magierowski Marcin, Jasnos Katarzyna, Kwiecień Sławomir, Brzozowski Tomasz)*
12:20	Leukocyte Sirtuin 1 mRNA overexpression is associated with Gestational Diabetes Mellitus (GDM) *(Turek Iga, Woźniak Lucyna, Cypryk Katarzyna, Nadel Iwona, Wójcik Marzena)*
12:30	Break
12:40	Clinical adherence of donepezil in the treatment of mild to moderate Alzheimer's disease in Taiwan *(Yun-Ping Chang)*
12:50	Prenatal stress paradigm vs. methylasoxymethanol acetate administration – biochemical and cognitive impairments observed in animal models of schizophrenia *(Ratajczak Piotr, Kus Kryzsytof, Woźniak Anna, Elżbieta Nowakowska)*
13:00	The analysis of schemes of treating schizophrenia and the organization of psychiatrical care in Poland, Germany and Ukraine *(Zaprutko Tomasz, Nowakowska Elżbieta)*
13:10	Photodynamic reaction with phtalocyanines (Aluminum 1,8,15,22-tetrakis(-phenylthio)-29H,31H-phthalocyanine chloride and Phthalocyanine green) enhanced by electroporation in human gastric cancer cell lines *(Zielichowska Anna, Kulbacka Julita, Daczewska Małgorzata, Bieżuńska-Kusiak Katarzyna, Garbiec Arnold)*

For abstract book go to http://jpm.umed.pl or visit it directly via

http://goo.gl/4EBp8W

Notes:

Full texts
of Juvenes Pro Medicina 2014

This book originates form Juvenes Pro Medicina 2014 abstract submission system. Juvenes Pro Medicina 2014 was 52nd Polish and 10th International Annual Training & Scientific Medical Congress of Students' Scientific Society and Junior Doctors held between the 8th and the 10th of May 2014 in Lodz. The event was organized by Students' Scientific Society at the Medical University of Lodz (supervisor: prof. Ewa Sewerynek, chairman: Konrad Stawiski). Should you have any questions please visit www.stn.umed.pl or contact us via stn@stud.umed.lodz.pl.

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Excision of BCC based on one dismension - is it (bio)logical?

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INTRODUCTION: Basal cell carcinoma (BCC) is one of the most frequent skin neoplasm. Perfect excision can be achieved by Mohs surgery, however in many countries this therapy is rarely applied. Widely available classic surgeries still need clear guidelines for defining margins preoperatively. Remarkably, most of papers in this filed are concerning calculation of â□□best marginâ□□ based on one dimension only and data collected from Mohs surgery.
PURPOSE: The aim of the study was to propose simple coefficient based on two dimensions which could be applied in this scenario and estimate its potential application on retrospectively harvested material.
METHODS: This was retrospective, cross-sectional study. The analysis was based on patient's age and sex, applied margins, localization, the greatest dimension (D1) and perpendicular dimension (D2) of BCCs that were excised in the Department of Surgical Oncology (Medical University of Lodz) in 2006 and 2007 using classic surgery. Eligibility criteria included perfect completeness cytoreduction. As the groups of recurrence risk according to Silverman et al. was taken into consideration, the material was also divided due to the low, medium or high risk (anatomical sites of low risk: trunk and extremities, high risk: central part of the face end ear region, medium risk: other. We proposed following coefficients: ? (multiplication of D1 and D2), Ă□ (division of D1 by D2), ? (area of perfect circle which diameter is D1), ? (subtraction of D1 as minuend and D2 as subtrahend). No corrections for multiple comparisons were applied.

This book originates form Juvenes Pro Medicina 2014 abstract submission system. Juvenes Pro Medicina 2014 was 52nd Polish and 10th International Annual Training & Scientific Medical Congress of Students' Scientific Society and Junior Doctors held between the 8th and the 10th of May 2014 in Lodz. The event was organized by Students' Scientific Society at the Medical University of Lodz (supervisor: prof. Ewa Sewerynek, chairman: Konrad Stawiski). Should you have any questions please visit www.stn.umed.pl or contact us via stn@stud.umed.lodz.pl.

RESULTS: Eligibility criteria were fulfilled by 80 out of 87 cases. Involved patients were 71,48Âą11,30 years old with a female-male ratio equal to 1,8. In whole dataset applied margins were weakly positively correlated with D1 (r=0,26; p=0,027) and D2 (r=0,3; p=0,019), but one-way ANOVA with post-hoc Dunnett T3 has shown no significant difference in means between groups. However, in the low risk group, margins were positively correlated with D1 (r=0,56; p=0,017), D2 (r=0,57; p=0,022), ? (r=0,55; p=0,028) and ? (r=0,48; p=0,043), while in medium risk group - with ĂŁ (r=0,51; p=0,035) and ? (r=0,66; p=0,004). There were no significant correlations in the high risk group. Moreover, we noticed that level of risk was negatively correlated with D2 (r=-0,22; p=0,05) and margins (r=-0,27; p=0,027).
CONCLUSIONS: Presented results can suggest that calculation of excision margins based on two, instead of only one dimension, could be more effective taking into consideration proposed parameters in low and medium risk group. Area of the lesion seems to be especially important for low risk BCCs excision (no need of special reconstruction in these areas). Configuration of the tumor has a special meaning in medium risk BCCs (planar areas with the need of reconstruction). However, it does not apply in high risk group, probably because of a variety of central face shapes.

The choice of method to prevent pregnancy in women in the 21st century

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INTRODUCTION: Sexually active females, who consciously think about family planning must choose a contraceptive method wisely. In 21st century choice is wide, but each of methods in addition to the advantages it also has drawbacks which can generate concerns about the effectiveness, satisfaction or side effects.
PURPOSE: The aim of the study is to assess the frequency and causes of selection of individual methods of contraception and gather opinions of women on issues relating to psychosocial aspects of the use of particular methods and sexual health.
METHODS: In the survey we used the original online survey, completed voluntarily by the female users of popular forums and discussion lists in the period from October, 2012. The survey included questions about sexual life of respondents, used methods of preventing pregnancy and various factors associated with their use.
This study is a continuation of a pilot survey made on a group of 1,408 women from across the Poland in March 2012.
RESULTS: Until 28th February, in study participated 17,395 adult and sexually active women - average age of respondents: 29.3 years.
87.79% of the women declared intended use of the method of prevent pregnancy, now or in past. The use of birth control methods most commonly declared by women with secondary education (94.06% vs 89.66% females with higher education and 82.92% with primary education), unbelieving (98.11% vs 91.15% believing and religiously practising females) and with no children (96.12% in comparison to 89.98% of women with children) - differences was statistically significant (in all cases $p<0.001$)
The mostly used method was the condom (76.52%) and least likely - spermicide (4.09%). In choice of method, women mostly based on opinion of sexual partner (38.99%) and gynecologist (35.58%).
The most satisfactory method of contraception in the opinion of women was the oral contraceptive pill (on a scale of 1 to 10 - average 8.36Âą1.79) - interestingly, at the same time this method is characterized by the highest number of complaints related to side effects (47.13% of users).
Study still in progress - final results will be presented at conference.
CONCLUSIONS: Nowadays, women consciously plan to setting up family - definite influence on this has the education and approach to religion. Full conclusions will be presented during the conference.
ADD: This paper is approved by Local Ethical Committee.

In silico identification of signaling pathways in esophageal squamous cell carcinoma, gastric and colorectal cancer using available genomic data

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INTRODUCTION: Recent analyses have elucidated many genetic alterations in digestive system carcinogenesis. However, only parallel analyses of many genes involved in various cellular processes such as cell cycle regulation, proliferation or apoptosis signaling pathways allow to understand molecular biology of those cancers.
To explain the alterations associated with digestive system cancers, the in silico analyses were performed by Geo2R and Panther 9.0 for over 700 different gene expression profiles from esophageal squamous cell carcinoma (ESCC), gastric (GC) and colorectal cancer (CRC) microarray studies. Performed analyses made possible to classify common signaling pathways by statistical enrichment test, between cancer and noncancerous tissue.

PURPOSE: The purpose of the study was to define the signaling pathways associated with carcinogenesis process in selected tissue types.
METHODS: Data for research were obtained from GEO Datasets. The main criteria for data selection were as follows: the origin of tissue (digestive system), the classification of studied samples (the cancer vs. noncancerous tissue sample), and the platform (Affymetrix HGU133 Plus 2.0). Data for ESCC (GDS3838), GC (GDS1210), and CRC (GDS4382) were analyzed by Geo2R in order to identify genes differentially expressed across studied samples. Results for top 250 genes ordered by their significance for each cancer type were subsequently analyzed using a Panther 9.0, by usage of a statistical enrichment test with the Bonferroni correction for multiple testing.
RESULTS: Performed in silico analyses of signaling pathways revealed that in respect of similarity between gene expression profiles in all three cancer types, common are PDGF, Wnt, FGF, PI3K kinase, and p53 pathways. The levels of genes expression involved in these paths are very differential. Further comparison for CRC and GC has shown the similarity of expression patterns of FAS, PI3K - Akt, and apoptosis pathways. Other, such as VEGF, p53 pathway feedback loop 2, angiogenesis, and TGF - Ä have revealed different expression levels. Comparison of ESCC and CRC pathways has shown that EGFR and DNA replication pathways are common for both types. Comparison between ESCC and GC has revealed only one common pathway - cell cycle signaling. Other identified for ESCC are cell death signaling, C - MYC, TNF - ?, NF?B, and Hedgehog pathways. In the case of CRC, NOTCH and DNA repair pathways were also identified. The analysis of GC has shown the downregulation of p38 MAPK, Ras, JAK/STAT, TNF and MAPK pathways. The significance level for all analyses is 0.99.
CONCLUSIONS: The p53, Wnt, PDGF, FGF, and PI3K kinase pathways seem to have a significant role for all cancer types. As shown, those pathways are involved in carcinogenesis process, however they differ in respect of gene expression. Other resulting paths are related to such important processes as DNA replication, cell cycle control, DNA repair or apoptosis, which up - or down - regulation may implicate in neoplasia.
ADD:

Early repolarization variant in ECG and the clinical characteristics of syncopal patients with regard to the cardiac clinic.

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INTRODUCTION: Early repolarization variant has recently been described as an ECG pattern associated with increased risk of sudden cardiac death and idiopathic ventricular fibrillation in patients without left ventricular damage.
PURPOSE: The aim of this study was to provide clinical picture and identify ERV in resting ECG of patients sent to the cardiac clinic because of recurrent syncope.

METHODS: Retrospective analysis of 141 patients consulted in 2012-2013 in the Cardiology Clinic at the Department of Cardiology and Cardiac Surgery was conducted. The study evaluated medical records contained in the data from interview and the results of additional tests with the 12-lead electrocardiogram recording at rest. Heart rate, ejection fraction, the incidence of syncope broken with mechanism of syncope, the presence of prodromal symptoms and their structure by sex and age were evaluated. ECG were analyzed with particular attention to the duration of the QRS complex on the lower side and the other leads, QT, and marks of early repolarization (ERV): the elevation of point J in the inferior and/or lateral leads and the presence of J wave in any lead, classifying the results by gender, age.
RESULTS: The study involved 101 women and 40 men, median age of 49 years. The most common mechanism of syncope was vasovagal reflex syncope (n= 93; 67.9%). Prodromal symptoms were reported in 100 of the patients (66.7 %). There was a significant correlation between their presence and age. Prodromal symptoms occurred significantly more often in younger people than in older (median age 42 years vs. 62 years; p = 0.038). ECG J -wave was observed in 12 patients (8.5 %) and elevation of point J in 21 patients (14.9%). There was a significant association between the mark of ERV and gender (25% male vs. 10.9% women; p= 0.034) and presence ERV on the side wall (22.5% in men vs. 5.9% in women; p= 0.004). The width of the QRS in the inferior leads was significantly higher in men than in women (median 100 ms vs. 90 ms; p= 0.011).
CONCLUSIONS: In syncopal men the ERV in the resting ECG occurs significantly more often than in women, and the width of the QRS in the inferior leads is significantly higher than in women. According to the data, these features may have an unfavorable prognostic value.
ADD: This paper is approved by Local Ethical Committee.

The perception of the mentally ill people by Polish society

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INTRODUCTION: According to National Institute of Hygiene, in 2012 in ranking of diseases causing the greatest anxiety among Poles, mental illness occupy 4th place after cancers, heart diseases and AIDS. Meanwhile, the number of people affected by these diseases increases - in the period from 1997 to 2010, the number of patients treated in outpatient care almost doubled and amounted nearly 1.4 million patients. In turn, according to the Warsaw Institute of Psychiatry and Neurology, this number may be as high as 8 million...
PURPOSE: The aim of the study is accurate assessment of the perception of people with mental illness in Polish society.
METHODS: The study used an online survey, distributed among people willing to participate via e-mail, forums and discussion ists. The survey included closed and open questions concerning subjective feelings about mental illness, persons suffering from mental illness and health education about mental problems.
The obtained data were statistically analyzed using STATISTICA 10.0.
RESULTS: Respondents asked about feelings about people with a mental illness, most of them answered "fear" (36.37%) - often women than men (44.62% vs 21.72%, p<0.001) and people without personal or family contact with psychiatrist (38.48% vs 15.52%, p<0.001). In questions concerning about knowledge on mental illness, the results were very low. The respondents declared that they knowledge about mental illness primarily came from the media (87.30%). At the same time, most of them willingly would take part in the educational campaign based on this issue (74.42%).
The study is still in progress - full results will be presented during the conference.

CONCLUSIONS: Undoubtedly, Polish society is afraid of mental illness - patients suffering from these diseases and developing of own of disease. However, often this fear is based on incomplete knowledge of the mental illness - the first step towards improving this situation should be to increase public knowledge through promotional and educational actions.
ADD: This paper is approved by Local Ethical Committee.

Evaluation of the potential risk of pregnant women' exposure to toxoplasma's oocysts or tissue cysts and estimation of the awareness of threat connected with it.

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INTRODUCTION: Toxoplasmosis belongs to the most widespread zoonosis in the world.Protozoan's transmission is possible i.a. by:swallowing oocysts residing in final host's faeces,raw or underdone meat and through placenta-vertical transmission to foetus.Infection acquired during pregnancy can cause congenital toxoplasmosis,related to the serious nervous system,organ of vision and heart injuries.The Polish Gynaecological Society recommends toxoplasmosis' serologic tests for every pregnant woman.Additionaly,proper hygienic and nutritional prophylaxis can prevent the infection of seronegative women.
PURPOSE: The aim of this work is to:evaluate the potential risk of seronegative patients' exposure to infectious form of toxoplasmosis and estimate knowledge about this disease among pregnant women.
METHODS: Anonymous survey was conducted among 115pregnant women,hospitalized in Madurowicz Hospital in Lodz in2014.The questionnaire included:general and gynaecological anamnesis,screening results, evaluation of lifestyle and test checking knowledge about toxoplasmosis,comprising 17questions with only one correct answer awarded with one point.For statistical analysis program The Statistica 10.0(t-student's test for operands,single-factor variance analysis,Spearman rank correlation coefficient and Pearson chi-square test)were used.Results were regarded as statistically significant,when probability satisfied inequality $p<0,05$.
RESULTS: 23,2%(n=16)among seronegative women courted at least one of significant risk factor:5,8% (n=4)cleaned cat's litter tray,14,5%(n=10)worked in garden without protective gloves, 2,9%(n=2)ate rare beef steak, 7,25%(n=5)tartar steak and 5,8%(n=4)unwashed fruit.Mean result of the test was 9 points(SD=2,7);54% of surveyed women achieved results below 9 points.Patients with university education had statistically significant higher mean result(9vs8)(p=0,0038).Better results,on the border of statistical significance achieved women living in bigger cities(p=0,0858)and practising medical occupation(p=0,0790).Women who indicated press,had higher knowledge,than those who did not point on it(10,12 vs 9,09)(p=0,0925).Knowledge about toxoplasmosis is not influenced by: age(p=0,6598),number of pregnancies(p=0,283),week of pregnancy(p=0,3358)or IgG antibodies level(p=0,135).
CONCLUSIONS: Almost one fourth of surveyed seronegative pregnant women courted at least one of significant risk factors,which could lead to protozoan's transmission.Over the half of surveyed patients gained in the test result below half of correct answers,that can be a sign of their insufficient knowledge,influenced only by higher education. It confirms the importance of control tests and prophylaxis.Essential source of information proved to be articles,which appears in magazines for women.
ADD:

Nobel Prizes in Physiology or Medicine and problems causing the greatest admiration in the scientific environment

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INTRODUCTION: The Nobel Prize in Physiology or Medicine has been awarded 104 times to 204 Nobel Laureates between 1901 and 2013. Administrated by the Nobel Foundation, is awarded once a year for outstanding discoveries in the fields of life sciences and medicine - this award is one of the greatest honors for a scientist.
PURPOSE: The aim of this work is to check in which areas of medical sciences were Nobel Prizes awarded the most frequently.
METHODS: In work used mainly retrospective analysis of literature, observations (own and others) arising from interest and informations gathered from the databases of museums.

RESULTS: Many important researches were interdisciplinary, but undoubtly the most frequently Nobel Prizes were awarded for the development of basic sciences (like anatomy, physiology, patophysiology, immunology, genetics). Moreover, Nobel Prizes quite frequently were awarded for discoveries in the field of infectious diseases (particularly in early period of granting this awards), endocrinology, neurology and pharmacology.
CONCLUSIONS: The results of this study are not intended to indicate the path for young scientists to win the Nobel Prize, but it is worth to know which discoveries were the most important for our humanity. As we can see, basic sciences still conceal many important mysteries to discover.
ADD:

The discussion on abortion across the pages of â□□SĹ□uĹźba Zdrowiaâ□□ in ‘50s of XXth century in People’s Poland - between ideology and science

1st auth. e-mail: maria.piek@gmail.com

INTRODUCTION: On 27 April 1956 the law of conditions of abortion considered very liberal was legislated. Because of this fact before the legislation as well as a few years after, in medical community the spirited discussion was continued on topic of legalization of abortion and childbirth control.
PURPOSE: The purpose of this work is to show the official stand of doctors on legalization of abortion in ‘50s and evaluation of influence of communistic ideology on their statements. [
METHODS: The official stand of medical community was possible to investigate basing on opinion-forming in People’s Poland magazine â□□SĹ□uĹźba Zdrowiaâ□□. Analyzed numbers come from years 1950-1959, i. e. years of intensive communist regime in Poland.
RESULTS: The research has shown ideological signs in publications’ content. From among arguments given by supporters of legalization of abortion, most of them were making divagations between ethics and philosophy. Some of the articles by its’ stylistics and construction as well, were indicating rather pamphlets and manifestos than scientific publications. The only academic data, which appears in the argumentation, is statistics of illegally induced miscarriages, although no reference to specific research result is given.
Besides the lack of scientific proves, argumentation is often devoid of context. Postulated law resolutions are treated as the only right and resolving any problems in health care.
By the propaganda language many a time ideological disregard against specific social group is shown. In reply to different opinion there are published articles expressing above all outrage. There are many expressions typical for social propaganda, which indicates importance of political situation, that in ‘50s of XX century accompanied the change in law.
CONCLUSIONS: Equally thought-provoking is analogy however poor arguments comparing to arguments used by supporters of legalization of abortion nowadays. In ‘50s main cause of legalization was supposed to be numerous interventions performer illegally with a great harm for women. Because of lesser knowledge on human embryology and lack of methods for prenatal examinations, there was no argument of abortion due to unborn child’s disease. Nevertheless in the law from 1956 there is a note about admittance of abortion in case of difficult life situation of a pregnant woman.
ADD:

The relationship between use of stimulants in and glycemic control adolescents with diabetes type 1

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INTRODUCTION: The European School Survey on Alcohol and Drugs (ESPAD) performed in 2011 among Polish adolescents indicates that use of stimulants in this age group is worryingly high and has increasing tendency. We decided to evaluate the relationship between stimulants use and glycemic control among adolescence patients with type 1 diabetes mellitus.
PURPOSE: Evaluation of the correlation between use of stimulants in adolescents with DM1, disease course and metabolic compensation.
METHODS: The study group consisted of 209 patients divided into two age groups 15-16 years (47,12%) and 17-18 years (52,9%), treated in the of the Department of Paediatrics, Oncology, Hematology and Diabetology, Medical University of Lodz (54%), Department of Paediatrics, Diabetology and Endocrinology, Medical University of Gdansk (35%) and Diabetes Outpatient Department in Sanok (11%). The adolescents were examined using anonymous questionnaire from ESPAD survey with additional questions regarding course of diabetes.
RESULTS: The study group included 48,88% of girls and 51,2% boys and the control group - 50,6% and 49,4%, respectively. Median duration of DM1 was 6 (3-10) years, mean BMI - 24,47 +/-13,58 kg/m2. Glycated haemoglobin concentration (HbA1c) >8% was assumed to mean worse metabolic control. In 47% patients HbA1c was ?8% and in 53% >8%.
Patients who smoked in the last 30 days (27,4%) had worse metabolic control (p=0,024) than those who did not. Higher HbA1c values were also observed in adolescents who got drunk at least once in 30 days (p=0,025). Cannabis preparations were used in 18,36% patients and it was more frequent in patients with HbA1c>8% (p=0,02).
Worse metabolic control was observed also in patients who tried amphetamine (p=0,0087) and magic mushrooms (p=0,0075).

CONCLUSIONS: Stimulants consumption in adolescents with DM1 is connected with worse glycemic control.
ADD:

Do new CRT guidelines change the number of patients qualified for this procedure?

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INTRODUCTION: In 2013 the European Society of Cardiology (ESC) issued new guidelines on the use of cardiac resynchronization therapy (CRT) in patients with heart failure altering electrocardiographic criteria. The question is how these changes will affect the qualification of patients for CRT and what will be their effects?
PURPOSE: The aim of our study was to determine how the change of recommendations for CRT would affect the number of patients implanted in the Department of Electrocardiology, Medical University of Lodz.
METHODS: We performed a retrospective study of 77 electrocardiograms (ECG) registered from patients undergoing CRT, prior to the procedure. On this basis 69 patients (58 men and 11 women) with average age of 69 years (range from 48 to 81) and sinus rhythm were selected. They were grouped according to the classes of recommendations for CRT based on the â□□2013 ESC Guidelines on cardiac pacing and cardiac resynchronization therapyâ□□ and â□□ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure 2012â□□ assessing the duration of QRS complex and the presence of left bundle branch block criteria. Both groups were then compared in terms of number of patients in each recommendation class. Patients who changed their recommendation class had their CRT response evaluated echocardiographically, considering a 10% increase of ejection fraction after 3 months as a positive response.

RESULTS: According to the guidelines from 2012, 40 patients (58%) were qualified to class I of recommendations and 26 (37.7%) to class II. According to the guidelines from 2013, 34 (49.3%) patients were qualified to class Ia, none were qualified to class Ib, 32 (46.4%) patients were qualified to class IIa and 3 (4.4%) to class IIb. None of the patients met the criteria for class III of recommendations. With new guidelines 6 (15%) patients changed the allocation from class I (2012) to class IIa (2013), among them 4 (66.7%) responded to CRT. None of 3 patients qualified to class IIb (2013) responded to CRT.

CONCLUSIONS: All evaluated patients were qualified in accordance with current ESC guidelines, and most of them fulfilled the criteria for class I of recommendations. The major change is that 15% of patients formerly in class I were allocated to class IIa. Considering the fact that most of them benefited from CRT, the reduction of recommendations for class I remains disputable. Another issue is the validity of recommendations for class IIb since no patient in this group responded to CRT.

ADD:

Evaluation of L-arginine treatment of fetus hypotrophy

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INTRODUCTION: The fetus hypotrophy therapy (fetus with body mass deficiency in proportion to body mass appropriate for the specific pregnancy age) with L-arginine is applied with good results by growing number of clinicians. In this paper evaluation of treatment methodology will be taken into consideration.
PURPOSE: Evaluation of L-arginine treatment of fetus hypotrophy.
METHODS: Medical records of all hospitalized women in the M. Pirogowa Provincial Specialist Hospital in the years 2010-2013 were retrospectively analyzed. In this period 31 women with minimum 7 day L-arginine therapy where found. They established a study group. Study was also divided into two groups, with high (>25)and normal BMI(<25). Ultrasonography measurement of fetus (biparietal diameter, head circumference, abdominal circumference, femur length, pulsatility index, resistance index, systolic/ diastolic ratio, and Shepard's fetal weight formula) before and after therapy where compered.
RESULTS: Studies showed that some measurement outcomes (BD,HC,AC,FL,PI,RI,S/D) were slightly increased after treatment of L-arginine, but not statistically significant (p>0,05). Although Shepard's fetal weight gain was significant (p<0,05).
CONCLUSIONS: These results suggest, that routine USG measurements may not be as so much helpful in treatment of fetal growth dysfunction as we thought. Only Shepard's fetal weight formula may give us some predictions.
ADD:

Borrowing and sharing prescription medication among patients at different stages of chronic kidney disease.

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INTRODUCTION: Prescription medication borrowing and sharing is a common but still scarcely investigated custom that can result in adverse health outcomes. Chief among these are delay in treatment for a condition due to self-treatment, ineffective therapy due to incorrect dosage or treatment duration and increased risk of drug adverse events. Chronic hemodialysis patients are unique since they have contact with a specialized medical personnel every second day and are constantly informed about increased risk of drug side-effects related to their disease. These factors might decrease the need for

borrowing and sharing prescription medication.
PURPOSE: To describe the pattern of prescription medication borrowing and sharing among adult patients with end-stage renal disease requiring dialysis as compared to non-dialysis patients with chronic kidney disease and subjects without chronic kidney disease.
METHODS: Study group comprised 299 patients (156 men and 143 women), age 18-80 years, who were under the care of tertiary nephrology and kidney transplant center and 93 reference subjects without chronic kidney disease.
RESULTS: Among hemodialysis patients 7.7% borrowed and 12.2% shared prescription medication, compared to 9.7% and 8.3%, respectively, among non-hemodialysis patients with kidney disease. Control subjects were more likely to borrow and share drugs: 20.4% and 19.4%, respectively. Hemodialysis (28%) and non-hemodialysis (30.6%) patients tended to return to previously maintained therapy without medical consultation less often compared to control subjects (34.4%). Analgesics, antihypertensives and antibiotics were the drugs most often borrowed (56.5%, 26.1%, 26.1%, respectively) and shared (70.6%, 44.1%, 14.7%, respectively) among all studied groups. Prevalence of a chronic disease in patients' opinion (97%) and following medical information in the Internet (35.6%) affected borrowing prescription drugs among survey participants. Frequency of gathering medical information in the Internet (48.9%) was higher among patients with chronic kidney disease who shared their prescription drugs.
CONCLUSIONS: Prescription medication borrowing and sharing is a common behaviour mostly among non-hemodialysis patients and control subjects as compared to hemodialysis patients. Irregular contact with the specialist and â□□Dr Googleâ□□ phenomenon seem to be the factors mostly affecting the incidence of borrowing and sharing drugs.
ADD: This paper is approved by Local Ethical Committee.

Willem Johan Kolff - the father of hemodialysis. The development of hemodialysis since the Second World War until today.

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INTRODUCTION: Willem Johan Kolff, a Dutch medicine doctor (14.02.1911 - 11.02.2009), built the first hemodialysis device in 1943. After the Second World War apparatus for hemodialysis and technique of dialysis process were constantly improved, thus both represent a high technological level now.
PURPOSE: To present Dr Willem Kolff as a determined and creative scientist as he was, and to show the development of hemodialysis technique over the years.
METHODS: Analysis of the information from literature.
RESULTS: Doctor Kolff, a graduate of the Medical University of Leiden, was one of the pioneers in the creation of artificial organs. In 1943 , during the German occupation, he built the first hemodialysis device. He created it using widely available materials, under inspiration of dialysis experiments carried out after the First World War. Since then dialysis technique has been permanently improved and stands at high level now. As a consequence hemodialysis allows patients with the end-stage renal disease to live and gives them chance to survive until kidney transplantation. Besides the artificial kidney, Dr Kolff worked on a number of projects of artificial organs, including the artificial heart. His imagination and engineering talent combined with the knowledge of human physiology allowed him to save the lives of millions of people. With hemodialysis it became possible to remove harmful waste products, excess water, toxins and drugs from blood. During the process, blood circulates repeatedly between the patients body and the dialyzer, which acts as an artificial kidney.
CONCLUSIONS: The invention of Dr Kolff gave renal failure patients hope and a postponement of severe complications related to chronic kidney disease and death. Evolution of hemodialysis over the years improved the process and had positive impact on patients lives.
ADD:

: Optimism as a protective factor against anxiety and depression in a group of gynecological patients - preliminary report.

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INTRODUCTION: Gynecological diseases relate to particular spheres of women's lives, which may be associated with depressed mood and experiencing severe anxiety, leading to a deterioration in their quality of life. Studies have shown that patients declared wish to receive information and emotional support such as participation in a support group. Many researchers draws attention to the benefits of the implementation of an interdisciplinary model of care based on a holistic approach.
The optimism correlates with adaptive strategies to cope with stressful situations and health-related behaviors.
PURPOSE: The aim of the study was to evaluate coping strategies in stressful situations, global optimism and emotional problems in the form of anxiety and depression in patients treated for gynecological diseases.
METHODS: The study was performed in the Clinic of Gynecology and Gynecologic Oncology, Institute of Polish Mother's Health Center in Lodz. 30 of patiens participated in a study.
The following questionnaires were used: CISS-coping with stressful situations , HAD scale -anxiety and depression, LOT-R scale -global optimism, demographic questionare. The results were analyzed using the STATISCTICA 10.0 PL. Pearson's correlation r-and descriptive statistics : mean, standard deviation, minimum and maximum values were used??. Statistical significance was set at $p<0.05$.
RESULTS: The obtained results show that the more optimistic patients feels less fear and depression.
It was noted that patients in stressful situations focused on the emotions were characterized by lower levels of optimism, and a higher sense of anxiety and depression.
In the group of patients feeling of anxiety correlated with the tendency to avoid confrontation with the stressful situation. Greater severity of anxiety in patients resulted in more frequent involvement in activities replacement in difficult situations (watching TV, reading, shopping).

CONCLUSIONS: Proper education on stress management strategies and the implementation of appropriate practices can have a positive impact on the reduction of anxiety and depression in gynecological patients.
ADD: This paper is approved by Local Ethical Committee.

Effects of preoperative oral carbohydrate loading on the postoperative cortisol level and HOMA-IR index as indicators of perioperative stress level.

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INTRODUCTION: The Enhanced Recovery After Surgery (ERAS) program is aimed at attenuating the body response to surgery which is characterized by its catabolic effect. Preoperative oral carbohydrates loading is a part of multifactorial ERAS program. Increased cortisol levels (one of the stress hormones) lead to increased protein catabolism, muscle wasting and reduced tissue sensitivity to insulin. Insulin resistance leads to hyperglycemia what has a negative influence on postoperative course and outcome.
PURPOSE: The aim of the study is to analyze influence of preoperative intake of carbohydrate drink before surgery on cortisol level and HOMA-index after surgery.
METHODS: The study was designed as a controlled, prospective study and included patients admitted for elective

laparoscopic cholecystectomy in the 2nd Department of General Surgery CM UJ in Krakow, between November 2013 and February 2014. Patients were divided into 2 study groups: group I, that received 300 mL of 10% glucose solution 3 hours before surgery and group II, that did not receive carbohydrate loading preoperatively and the last meal was given at the day before the surgery. Cortisol, insulin, insulin resistance (via HOMA-IR index) and fasting glucose were measured 2 hours before, directly after and 24h after procedure.
RESULTS: There were no statistically significant differences between the groups in cortisol levels directly after (mean 23,3 ug/dl vs 24,6 ug/dl respectively) and 24 h after the procedure (mean 10,4 ug/dl vs 9,2 ug/dl respectively). Moreover, average ratio of cortisol level immediately after surgery to level of cortisol prior to surgery (mean 1,4 vs 1,6 respectively) is not remarkably different in the group that received oral glucose load. The average ratio of cortisol level 24 h after surgery to level of cortisol prior to surgery (mean 0,6 vs 0,8 respectively) was also statistically irrelevant. There was no significant difference between the groups in hospitalization period after operation.
CONCLUSIONS: Preoperative oral carbohydrate loading have no impact on reduction of postoperative cortisol levels in the selected group of patients. It seems that there is no reason for preoperative glucose solution loading in patients who were qualified for laparoscopic cholecystectomy.

ADD: This paper is approved by Local Ethical Committee.

Enhanced Recovery after Colorectal Surgery in the elderly

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INTRODUCTION: Enhanced Recovery After Surgery (ERAS) protocols aim to improve patient care, reduce complications and shorten hospital stay. The worldwide introduction of multimodal enhanced recovery programs has also changed perioperative care in patients undergoing colorectal surgery in our department.
PURPOSE: To define whether use of ERAS protocol in perioperative care benefits the elderly patients undergoing laparoscopic colorectal surgery
METHODS: 60 patients operated in 2013 were prospectively analyzed. The inclusion criterion was elective laparoscopic colorectal operation as the main procedure. Emergency cases or combined procedures were excluded. Patients were divided into two groups. Group 1 comprised patients 65 years old or younger, and patients older than 65 years were included into group 2. Length of hospital stay, postoperative course, time to first stool passage, perioperative complications, readmission rate were analyzed in both groups.
RESULTS: Group 1 comprised 26 and group 2 included 34 patients. Mean age in group 1 and 2 was 55.8 and 76.3 years respectively. Group 2 patients were assigned to higher ASA grades ($p<0.05$). There were no conversions and no intraoperative complications. Overall postoperative complications occurred in 5 (19.2%) cases and in 6 (17.6%) cases in group 1 and 2 respectively. In all patients oral fluid intake started at the day of surgery. In 84.6% from group 1 and 82.3% from group 2 it was tolerated well and enabled to withdraw intravenous fluid administration. In 19 patients (73.1%) from group 1 and 23 patients (67.6%) from group 2 intravenous fluids were ceased within 24 hours since the surgery. Mean total intravenous fluid amount in group 1 was 2344 ml and in group 2 - 2444ml (n.s.). In 3 (11.5%) patients from group 1 and 4 patients (11.7%) in group 2 postoperative nausea and vomiting was observed (n.s.). Patients from group 1 passed first stool at mean of 2.5 day, and from group 2 after 2.4 days (n.s.). Mean length of hospital stay was 4.5 (2-18 days) in group 1 and 4.8 (2-22 days) in group 2.
CONCLUSIONS: Implementation of ERAS protocol is possible irrespectively of the age of surgical patients. Its use in the elderly group of patients allows shortening the length of hospitalization and is not associated with higher risk of postoperative complications or readmissions.
ADD: This paper is approved by Local Ethical Committee.

E-learning as a modern method of teaching of medical subjects - a pilot study

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INTRODUCTION: Ex definitione, e-learning is a method of flexible learning on a distance, with use of online tools. In an increasing number of schools, including universities is the slow but noticeable tendency to create VLE (Virtual Learning Environment), giving access to didactic materials. One of the main reasons for this decision is the desire to improve the quality of teaching.
PURPOSE: The aim of the study is to assess the approach of medical students on the lower years of studies about e-learning tools and evaluate effectiveness of this tools.
METHODS: From each of Polish medical faculties we selected group of 25 students (from 2nd and 3rd year of study) - totally: 300 students. Each of students received access to special e-learning system with didactic materials about hypertension, asthma and diabetes. E-learning platform was divided into four sector - first contained only text materials, second additionally contained lectures in audio files, third additionally contained video files and the last one allows contact with the teacher using Google Hangouts. Students were randomly divided into 4 groups, giving them access only to one of the four sectors of the platform. The study lasted 12 months - at this time, students benefited from regularly appearing materials. After 12 months their knowledge was checked by using 200 questions in online multiple choice test - exam was considered as passed when students obtained 112 points.
RESULTS: 274 students completed all steps of learning - 268 of them (97.81%) passed the final exam. The test results were significantly different according to assigned sector of e-learning platform - medians of points: S1: 139, S2: 148, S3: 159, S4: 177; $p<0.001$).
Students evaluated the e-learning method of learning as a very pleasant and effective (94.53% - often in group of students from 3rd year than from the 2nd year: vs 96.32% vs 91.24%; $p<0.001$).
Due to limitations of abstract, other results will be presented at conference.
CONCLUSIONS: In the near future should to consider the inclusion of e-learning as a complementary method of teaching, especially on medical studies. Due to continuous and rapid development of medical sciences, the method of continuous repetitions and update information with use of e-learning tools can help to improve the quality of education and increase the level of knowledge of students and young doctors.
ADD: This paper is approved by Local Ethical Committee.

Social evaluation of Polish health care system

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INTRODUCTION: In accordance to Polish Constitution (article 68), everyone has the right to health care. Public authorities should to provide equal access to health care services to citizens, irrespective of their financial situation. This requirement should make that society will be satisfied with the quality of the health care system. However, as previous studies showed, it is only an idyllic thinking - in the ranking of Euro Health Consumer Index in 2012, Poland classified on the 27th and in 2013 - on the 31st of 33 positions.
PURPOSE: The aim of the study is social assessment of health care system in Poland. Furthermore, we gathered various informations, mainly about its main advantages, disadvantages and advices of society how to increase the quality of Polish system.
METHODS: The method of the study was original online survey, distributed via e-mails, forums and discussion lists - questionnaire consisted solely of closed questions. The survey was filled voluntarily by respondents from whole Poland, in

period from May 2013 to this day. The collected data were analyzed statistically with STATISTICA 10.0 (Statsoft, 2011) - statistical significance was considered when $p<0.05$.
RESULTS: The study involved 22,567 adult people from whole Poland - 54% of respondents was women and 46% - men. The majority of respondents assess the Polish health system badly (38.52%) or very badly (30.55%) - worse opinions about health system more often expressed by women than men (69.06% vs 66.84%; $p<0.001$). The main responsible for the current bad state of Polish health care system (in the opinion of respondents assessing it as bad) shall be borne by the government, mainly by improper reforms (71.98%).
According to respondents opinion, the strongest positive pillar of the current health care system is easy access to primary care physicians (74.89%) and high level of their competence (66.46%). In opposition to this is the opinion about poor availability of specialists (87.25%) and and the high cost of treatment, despite the assurances of free health care (79.55%). Study is still in progress. Due to limitations of the abstract, full results will be presented during the conference.
CONCLUSIONS: Polish society is not satisfied with the current state of the Polish health care system - proper actions must be taken to reform the current health care system and thereafter to popularize positive aspects of these changes as well as the entire system.
ADD:

The assessment of knowledge and rapidity of FAST examination among students of Medical University in Lodz.

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INTRODUCTION: FAST (focused assessment with sonography for trauma) is one of evaluations method of patients with a significant injury. It is possible with this technique to identify the presence of intraperitoneal or pericardial free fluid even when it volume is about 500ml. A positive test result can help qualify patient to the appropriate group according to TRIAGE system, as well as help undertake and speed up a decision to proceed with a surgery. FAST is a relatively easy, quick, repeatable and non-invasive examination method, what makes it particularly useful and valuable in accident and emergency (A&E) conditions. There have been many studies on the sensitivity and specificity depending on a medical knowledge and education of a specialist. Due to the high usefulness of FAST test, we have decided to conduct a short course for medical students.
PURPOSE: The purpose of the study is to learn how to examine correctly perihepatic space, perisplenic space, pericardium and the pelvis during FAST scan.
METHODS: Students of medical faculty at Medical University in Lodz participated in our study concerning FAST, which is consisted of two parts: theoretical lecture and practical training, during which participants' USG skills were assessed. We examined subjects knowledge about FAST and past contact with USG examination with a survey. Students could get from 0 to 3 points for their ultrasonography and from 0 to 6 for previous FAST experience. Participants practiced in pairs. First, the method of exam was presented by the instructor. Afterwards the students were asked to visualize four classic areas, in which free fluid usually accumulates. Participants repeated procedure after fifteen minutes of practice. Both times of FAST examination, before and after 15 min period, are measured, computed and analysed.
RESULTS: The vast majority of respondents had contact with ultrasonographic examination, although the knowledge about FAST is not wide (over 50% achieved less than 3/6 points). Students, which have already had earlier experience with ultrasonography, are able to reach proper results of this exam in shorter time, in comparison to participants without previous abilities. Both assessed groups reached improved results during second part of course (150,4 Âą 36,4 s vs 103,1 Âą 46,1 s).
CONCLUSIONS: The examined students of Medical University in Lodz could perform FAST properly and quickly after the one day course, what proves the simplicity and rapidity of this method.
ADD:

In vitro fertilization vs naprotechnology - approach to the problem in Polish society

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INTRODUCTION: In vitro fertilization is a method consisting in binding oocyte and sperm in a laboratory. In the literature, this method is known as a technique of assisted reproduction, recommended for the symptomatic treatment of infertility, regardless of its cause. This methods is not accepted by Catholic Church, which encourages to methods of diagnosis own fertility by self-observation according to Creighton model - this method is called naprotechnology.
PURPOSE: The aim of the study is to evaluate an approach to the invitro fertilization and naprotechnology among people suffering from infertility.
METHODS: The study used online survey, distributed directly among users of discussion forums dealing with issues of infertility (nasz-bocian.pl, edziecko.pl, forum.polki.pl, abrahamisara.pl, forum.28dni.pl and others). The questionnaire consisted of closed and open questions regarding personal issues, infertility and subjective approach to in vitro fertilization and naprotechnology.
Obtained informations was analyzed statistically using STATISTICA 10.0.
RESULTS: The study Involved 1,323 people suffering from infertility - 709 men and 614 women. The average age of respondents was 30.1Âą3.7 years.
97.58% of respondents know what is in vitro fertilizations and 71.73% know basic principles of naprotechnology (in this case more often women than men - 77.04% vs 67.14%; $p<0.001$). To respondents declaring lack of knowledge about naprotechnology we gave the basic informations about it.
Respondents asked about opinion on the naprotechnology mostly evaluate it as a method with low (52.31%) or very low effectiveness (21.62%). The highest percentage of evaluators naprotechnology as a good method of treatment was among the believers and practitioners people - 49.98%. In vitro fertilization is rated mostly as a very effective method (65.38%), but also difficult to achieve because of the high cost (53.21%). Respondents were enjoying the fact that the government begins to help them reach for in vitro fertilization (71.2%).
Due a limitation of abstract, other results will be presented at conference.
CONCLUSIONS: In the opinion of respondents, naprotechnology is not an effective and trustworthy technique for treatment of infertility as in vitro fertilization. This observation is particularly important because the politicians in recent times especially often discuss about the legitimacy of assisted reproduction.
ADD:

Fertility monitors in eyes of women and their sexual partners

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INTRODUCTION: Fertility monitors (also called menstrual cycle computers) are electronic devices designed for the task of preventing pregnancy - their principle of operation is based on the combination of principles of basic family planning methods - thermal and calendar method. According to the manufacturer (supported by scientific articles like BiĹkowski, 2010), Pearl Index of these devices is comparable to the Pearl Index of contraceptive pills.
PURPOSE: The aim of the study was to evaluate the approaches of women and their sexual partners to the principle of fertility monitors and - in the case of women who used these devices - gathering of information about their personal feelings associated with computers.
METHODS: The study used an online survey completed voluntarily by the females and their sexual partners (women were invited to send a dedicated link to survery to her partner, if that is possible). The questionnaire was distributed via e-mails,

forums and discussion lists. The survey included an accurate description of fertility monitors and questions about the opinion arising from the reading of the source text or from their own experiences.
RESULTS: The study involved 4,725 people - 2,712 women and 2,013 men (699 women are singles). Among surveyed women, 129 (4.76%) of them have a personal experience with fertility monitors. The average age of respondents was 28.9 years and did not differ significantly between the groups of men and women (p=0.68).
This method of preventing pregnancy is trusted by only 10.18% of respondents - more often in women than in men (10.77% vs 8.59%; p<0.001) and more often in women with relationships than singles (9.14% vs 6.29%; p<0.001). The main reasons for the lack of confidence among respondents were: uncertainty of this method in disorders of the menstrual cycle (68.36%), general lack of trust to methods of natural family planning (41.80%) and fear of malfunction of device as often in electronics (30.03%). Among the users of devices trust is higher, but in survey we noticed some opinions that pregnancy would not be bad, so the change of the method is not needed.
Due to limitations of abstract, other results will be presented at conference.
CONCLUSIONS: Fertility monitors do not have high confidence, but the choice of method of preventing pregnancy is an individual choice - so it should not surprise a growing interest in these products.
ADD:

Would you like cup of tea or coffee? - Impact of tea and coffee on blood pressure.

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INTRODUCTION: Tea and coffee are popular drinks, drunk by most people every day, even several times per a day. It is worth to know, how these drinks affect to one of the important parameters for our health - blood pressure.
PURPOSE: The aim of the study was to evaluate the effect of small doses of tea and coffee on blood pressure.
METHODS: The study was performed within three popular cafes in cities WrocĹ□aw, PĹ□ock and Ĺ□ĂłdĹş in period from 1 March to 30 September 2013. Adult guests who came to the cafe were informed about the research. People willing to participate in the study were asked to fill a short questionnaire and (after a short rest) for measuring pressure. 15 minutes and if possible also 30 minutes after drinking one cup of tea or coffee, blood pressure was measured again. For measurements of blood pressure were used blood pressure monitors Medel Elite. Obtained data was statistically analyzed using STATISTICA 10.0.
RESULTS: The study involved 2219 people - 1287 women and 932 men in mean age 34.9 years. Among the respondents, 484 people (21.82%) declared cardiologic problems, mainly hypertension - more frequent in men than in women (26.39% vs 18.49%; p<0.001). In case of 17 persons, it was necessary to alert about need for abandonment of order due to the high blood pressure on the start (hypertension stage II or III, according to ESH/ESC).
For each of drink we noticed a acute response in the form of increase of systolic and diastolic blood pressure, except Rooibos tea. Among served drinks, the highest increase of blood pressure was after pure black Robusta coffee - in comparison to the starting blood pressure increase amounted 7.63% for systolic and 4.29% for diastolic blood pressure after 30 minutes (data about pressuure after 15 minutes was not statistically significant). It was also noted, than in the cases of person with cardiac problems, response was little stronger than in healthy individuals.
Full results will be presented at the conference.
CONCLUSIONS: Drinking tea or coffee can significantly affect on blood pressure - doctors and patients should keep this in mind, especially patients with cardiac diseases in which this influence is probably even stronger than in healthy people.
ADD:

History of "miracle drug" - insulin

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INTRODUCTION: Diabetes (especially type 1 diabetes) is a disease known for centuries - this disease is one of the first described with an Egyptian manuscript from circa 1552 BCE, where authors mentioned "too great emptying of the urine - this is one of the hardest diseases to live with". And indeed it was - diabetes took a cruel toll of death, for a memorable time when the Canadian team of researchers has discovered the drug, referred later as "miracle drug" - insulin.
PURPOSE: The aim of this work is to show the little-know but very interesting historical aspects of discovery and use of insulin in the treatment of diabetes.
METHODS: In work used mainly retrospective analysis of literature, observations (own and others) arising from interest and informations gathered from the databases of museums.
RESULTS: In 1889 in Germany, O. Minkowski and J. von Mering showed that if the pancreas was removed from a dog, the animal got diabetes. This was a key to further researches. During the first two decades of the 20th century, investigators prepared extracts of pancreas which successfuly lowering glycemia on test animals - unfortunately, no without side effects and toxic reactions. In the spring of 1921, scientific team consisting mainly of physiologist (J.J.R. MacIeod), orthopedic surgeon (F.G. Banting) and student assistant (C. Best) was the first which solved the riddle. Without a doubt, an important member of the team was also Marjorie - dog who took part in the first experiments on insulin.
In April 1922, the Toronto team prepared a paper summarizing all the work to date. Researchers made plans to manufacture insulin on a large scale, financed and administered by the Connaught Laboratories. But for the first 2 months, due to error of one of the co-workers it was extremely inefficient and unprofitable - for a moment there was a fear that the wole project will fall...
History of insulin is long, very interesting and worth to telling - what I intend to make during the conference.
CONCLUSIONS: History is extremely instructive. Knowledge about history of diabetes should help to better understand this disease and know the importance of old and new discoveries related to it. The discovery of insulin is undoubtedly a milestone in this story, which is worth to remembering.
ADD:

Vaccinations against influenza in the eyes of parents of children and adolescents with type 1 diabetes

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INTRODUCTION: According to data from 2010, the level of vaccination against influenza in the pediatric population of Poland was 3.1%. In accordace with the recommendations of the Polish Diabetes Association, vaccination against influenza is recommended to every child over 6 month of age once a year - is it actually takes place?
PURPOSE: The aim of the study is to assess the incidence of influenza vaccination among children and adolescents with type 1 diabetes and to assess the parents' approach to the issue of vaccination against influenza.
METHODS: The study was conducted among parent of children with type 1 diabetes under the care of Diabetes Outpatient in Konopnicka Memorial Teaching Hospital in Lodz. In the study we used an original questionnaire containing questions about performed vaccinations and general knowledge about vaccination. After completing the form, medical staff introduced to the survey information about the last result of the routinely performed measurement of glycated hemoglobin (HbA1c).
RESULTS: Until 28 February 2014, the study included 103 parents of children with type 1 diabetes for at least 2 years. In the last 5 years at least one influenza vaccination we noticed only in 6 children - in each of these cases, a parent declared higher education. Regular vaccinations was not confirmed by any of the parents involved in the study. The main reason for not taking the vaccination of children was a fear about the health of child after vaccination (81.55%) and unwillingness to pay for

the vaccine (24.27%).
Parents asked to assess the effectiveness of the influenza vaccine on a scale of 1 to 10, rated it average 5.3Âą1.1. Parents asked about the most popular media myths about vaccinations most likely believed that immunizations are popularized by the medical community exclusively for higher wages of pharmaceutical companies (on a scale of 1 to 10 - 5.9Âą1.8) and that vaccination significantly weaken the immune system of children (5.4Âą1.0).
Study still in progress.
CONCLUSIONS: Althought specific recommendations of Polish Diabetes Association, parents of children with type 1 diabetes do not vaccinate them against influenza, mostly due to distrust to its efficacy and safety. In the case of sustaining the recommendations by the Polish Diabetes Association it will be necessary to carry out the appropriate actions to promote vaccinations against influenza.
ADD: This paper is approved by Local Ethical Committee.

Basic clinical variables change the chance of positional vs non-positional obstructive sleep apnea syndrome

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INTRODUCTION: The importance of obstructive sleep apnea syndrome (OSAS) relates to the increased risk of cardiovascular adverse effects and excessive daily sleepiness impairing daily activity. Nocturnal polysomnography is mandatory diagnostic procedure before the initiation of treatment, unfortunately not widely accessible. Two clinical sub-types of OSAS are recognized: non-positional OSAS with apnea-hypopnea index (AHI) ? 15/h in supine and lateral decubitus positions and positional OSAS with AHI ? 5 in supine and AHI < 5/h in lateral position.
PURPOSE: We decided to assess the value of clinical variables gathered on standard examination in changing the probability of the diagnosis of positional vs non-positional OSAS.
METHODS: We collected clinical and polysomnographic data on 1181 patients from Sleep and Respiratory Disorders Centre outpatient registry. All patients were referred to the centre due to the presumptive diagnosis of OSAS based on typical symptoms, e.g. witnessed apneas, excessive daily sleepiness, or unrefreshing sleep. Variables of interest included age, body mass index (BMI), sex, Epworth Sleepiness Scale (ESS) score, history of hypertension and smoking (defined as at least 15 pack years). Patients who slept at least 30 minutes in dorsal and lateral decubitus position (n=970) were enrolled to create logistic regression models assessing the influence of the variables on AHI.
RESULTS: The initial probability of positional OSAS was 38%. It decreased with the rise of BMI (OR 0.68, 95%CI 0.57-0.82). Effect of age, ESS score, hypertension or elevated blood pressure on examination (defined as greater or equal to 140/90mmHg), sex and smoking on did not prove statistically significant.
Non-positional OSAS initial probability of 31% was modified not only by BMI(OR 1.49, 95%CI 1.26-1.77), but also by age(OR 1.16, 95%CI 1.05-1.28) and ESS score (OR 1.07, 1.03-1.11) independently. History of hypertension or elevated blood pressure on examination increased probability of this diagnosis (OR 1.36, 95%CI 1.10-1.69). Both male gender and smoking were independent risk factors as well (OR 1.37, 95%CI 1.10-1.70 and OR 1.19, 95%CI 1.01-1.41 respectively).

CONCLUSIONS: Basic clinical variables gathered on examination influence patient’s probability of positional vs non-positional OSAS and thus success of positional vs the need for CPAP treatment.
ADD:

EXPERIMENTAL COLITIS IN MICE IS ATTENUATED BY TOPICAL ADMINISTRATION OF CHLOROGENIC ACID

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INTRODUCTION: Epidemiological data suggest that the consumption of polyphenol-rich foods reduces the incidence of cancer, coronary heart disease and inflammation. Chlorogenic acid (CGA), an ester of caffeic and quinic acids, is one of the most abundant polyphenol compounds in human diet with proven biological effectiveness both in vitro and in vivo, such as antioxidant, radical scavenging, anticarcinogenic and anti-inflammatory activity. The effects of CGA in the inflammatory reaction in the gastrointestinal (GI) tract have not been explored so far.
PURPOSE: The aim of the present study was to investigate the possible anti-inflammatory effect of the CGA and its mechanism of action in the mouse GI tract.
METHODS: We used a well-established model of colitis, induced by intracolonic (i.c.) administration of trinitrobenzene sulfonic acid (TNBS) in mice. The anti-inflammatory effect of CGA in the colon was evaluated based on the clinical, macroscopic and microscopic parameters. To investigate the mechanism of protective action of CGA, myeloperoxidase (MPO), H2O2 and NF-?B levels were assessed in colon tissue.
RESULTS: CGA administered i.c. at the dose of 20 mg/kg (twice daily) protected against TNBS-induced colitis more effectively then the same dose administered p.o., as evidenced by significantly lower macroscopic and ulcer scores. Furthermore, administration of CGA (20 mg/kg, i.c.) reduced neutrophil infiltration, as demonstrated by decreased MPO activity. Moreover, the i.c. administration of CGA suppressed activation of NF-?B, as evidenced by lower levels of phospho-NF-?B/NF-?B ratio in the tissue. In addition, CGA did not affect the oxidative stress pathways.
CONCLUSIONS: CGA has anti-inflammatory properties through reduction of neutrophil infiltration and inhibition of NF-?B-dependent pathways, independent of the stimulation of oxidative stress protection mechanism. Our results suggest that CGA may have the potential to become anti-inflammatory therapeutic for treatment of GI diseases.
ADD: This paper is approved by Local Ethical Committee.

"Antinociceptive action of a dimeric enkephalin peptide, biphalin, in the mouse models of visceral pain: new potential treatment of abdominal pain associated with inflammatory bowel diseases

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INTRODUCTION: For centuries opioids were used as potent analgesics to treat moderate to severe pain. Recent studies showed that the opioid receptor-dependent signaling plays an important role in pathogenesis and progression of inflammation. Here we hypothesized that the activation of opioid receptors by selective agonists could be used as an alternative for current treatment in inflammatory bowel diseases (IBD)
PURPOSE: The aim of the study was to characterize the anti-inflammatory and antinociceptive action of a dimeric enkephalin peptide, biphalin (Tyr-D-Ala-Gly-Phe-NH2)2, a potent MOP and DOP opioid receptor agonist, in the mouse models of IBD.
METHODS: We used two mouse models of IBD, acute and semi-chronic, induced by intracolonic (i.c.) injection of trinitrobenzenesulfonic acid (TNBS) on Day 0. Mice were treated with vehicle or biphalin twice daily at the dose of 5 mg/kg intraperitonealy (i.p.) on D0-D2 (acute) and 5 mg/kg i.p. or i.c. on D3-D6 (semi-chronic). On D3 (acute) or D7 (semi-chronic) the macroscopic score of colitis was evaluated.
The antinociceptive action of biphalin (5 mg/kg, i.p.) in inflamed animals was assessed in mustard oil-induced model of visceral pain. To evaluate the role of opioid receptors in the effect induced by biphalin, the non-selective opioid receptor antagonist naloxone (1 mg/kg, i.p.) was co-administered with biphalin. To assess the action of biphalin in the central nervous system, the antinociceptive effect was evaluated in the hot plate test.

RESULTS: In the semi-chronic mouse model of colitis, biphalin (5 mg/kg, i.c.) improved colitis macroscopic score (2.7Âą0.3 and 4.2Âą0.8 units for biphalin and vehicle treated animals, respectively), but the effect was not statistically significant. Biphalin injected i.p. (5 mg/kg) did not produce any anti-inflammatory effect, but displayed a potent antinociceptive action in the mustard oil-induced pain test (9.8Âą1.1 vs. 51.0Âą8.6 pain-induced behaviors for biphalin vs. vehicle treated mice, respectively). The antinociceptive effect was reversed by naloxone, indicating opioid receptor-mediated mechanism. In the hot plate test, biphalin (5 mg/kg, i.p.) produced a potent antinociceptive activity in inflamed mice, suggesting central site of action.
CONCLUSIONS: Our data suggest that biphalin may become a novel opioid-based analgesic agent in IBD therapy and warrant further investigation of its pharmacological profile.
ADD: This paper is approved by Local Ethical Committee.

Analysis of relationship between exercise training intensity and occurrence of herpes and respiratory infections in competitive level athletes

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INTRODUCTION: Regular intensive physical may affect the immune response and lead to more frequent infections.
PURPOSE: Analysis of relationship between intensity of training and the occurrence of infections in competitive athletes in the context of concomitant asthma and allergy symptoms.
METHODS: The study included 84 athletes (36 female, 48 male, median age 19 years) randomly selected from Summer Olympics participants (n=42) as well as athletes practicing speed skating or swimming for least 3 years (n=42). (Allergy Questionnaire for Athletes (AQUA) used for screening for allergy and asthma in athletes was employed for collecting data on symptoms, training intensity and presence of infections . Chi-square test and tau-Kendall coefficient for statistically significant differences were used in statistical analysis.
RESULTS: Exercise training exceeding 21 hours per week was associated with an increased incidence of herpes infection as compared to the subjects exercising less than 21 hours a week (22% vs. 1,9% [p<0,01; ?=0,4]). Athletes diagnosed with asthma more frequently suffered from upper respiratory tract infections (URTIs) as compared to non-asthmatics (43% vs. 18% [p<0,05; ?=0,26]) and more frequently were incapable of exercise training because of URTIs (83% vs. 50% [p<0,001; ?=0,51]). Presence of any allergic disease was also associated with frequent self-reported respiratory infections (50% vs. 20% [p<0,05; ?=0,26]). No significant association of herpes infections with URTIs, allergy or asthma symptoms was observed.
CONCLUSIONS: Intensive exercise training may be associated with altered immune response leading to more frequent herpes infections. The presence of asthma or allergy is associated with increased frequency of self-reported URTIs although those symptoms may be misinterpreted while filling the questionnaire. Our results provide a basis for further studies on susceptibility to infections in competitive athletes.
ADD:

MEAN PLATELETS VOLUMNE IN DIAGNOSIS OF ACUTE APPENDECITIS

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INTRODUCTION: Acute appendicitis (AA) is one of the most common surgical emergencies operations. Diagnosis is based on

careful history, physical examination, laboratory and imaging investigation. However accurate diagnosis might be difficult even for experienced surgeons, as evidenced by the high rate of negative explorations, which commonly reaches 20% to 30%.
PURPOSE: The aim of this study was to investigate the diagnostic value of mean platelet volume (MPV) in acute appendicitis.
METHODS: Our study was carried out in 209 patients, who had laparotomy because of acute appendicitis suspicion and 206 healthy control group. We evaluate MPV, white blood count (WBC), percentage of neutrophil count (NEU%) and level of C-reactive protein (CRP), as a diagnostic markers in acute appendicitis.
RESULTS: Normal appendixes were removed in 21% of patients. We didn't detected statistically significant difference in MPV level between patients with acute appendicitis and control group and patients with AA and patients with removed normal appendix.
CONCLUSIONS: The usefulness of the volume of the plate (MPV) as a laboratory marker in acute appendicitis diagnostic is highly questionable.
A statistically significant decrease in MPV and NEU% was noted in patients with complicated acute appendicitis.
ADD:

Laparoscopic monitor - WHERE SHOULD BE PLACED?

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INTRODUCTION: Monitor during the laparoscopic procedures most often is placed near the operating table, at eye level. This way of presenting an image has an impact on the deterioration of eye-hand coordination. Firstly, this is related with the inability to simultaneously observe the operating field on the screen and moves of hands. Secondly "axis of vision" endoscope often does not coincide with the natural surgeons' "axis of view" if he look directly into the operative field. More than this, tools handle act as a lever with the axis of rotation, which lies at the incision of abdominal wall and therefore the actual movements of the handles of tools are mirror images of tool tips movements on the screen. Studies have shown that the most ergonomic position is "neutral" positon, where head is bent at an angle of 15 - 45o. What more, if eyes are draw downwards it improves the ability of lenses accommodative, causes much slower eye fatigue and significantly reduces the number of episodes of operator headache.
PURPOSE: The aim of the study was to check if the height of the monitor may influence on the laparoscopic procedures.
METHODS: The study was performed at 52 medical students, who were asked to loop the thread through 9 eyelets, on a custom made laparoscopic trainer. 28 students earlier have been training on trainers. Each person has passed four tests in the two settings of the monitor.
RESULTS: Average times for subsequent attempts were getting better (learning curve).
Achieved times tasks were better, when there was low setting of the monitor.
Benefits of low-monitor settings were obtained also by students with experience in laparoscopy.
Low setting of the monitor was slightly more prefered than the high one (56% vs. 46%).
CONCLUSIONS: It seems reasonable to search for new technologies, that will transfer the laparoscopic view "on patient", which will improve the ergonomics of the movements.
ADD:

Type 2 Diabetus Mellitus is an important risk factor for Sudden Cardiac Arrest in patients with STEMI.

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INTRODUCTION: Sudden Cardiac Arrest (SCA) is the most severe complication of ST-segment elevation myocardial infarction (STEMI). Type 2 Diabetes Mellitus (T2DM) and its negative effect on the development of cardiovascular diseases is well known and documented. However, there is no conclusive data about frequency of SCA in diabetic patients with STEMI.
PURPOSE: Impact assessment of T2DM on ACS occurence in patients with STEMI.
METHODS: We divided 450 consecutive patients (266 men, 184 women, age: arithmetic mean 64.9 years, median 63 years; 214 smokers [47.6%]) with confirmed STEMI into two groups: with and without T2DM and evaluated the incidence of SCA (before admission to the hospital).
RESULTS: Among our group of 450 patients we observed 137 T2DM cases (of which 15 were diagnosed in the hospital, according to the current criteria of Polish Diabetes Association). The dominant mechanism of SCA in both groups (with and w/o T2DM) was ventricular fibrillation or ventricular tachycardia without a pulse (VF / VT). We recorded only one case of asystole, in a patient with T2DM. In a group of patients with Diabetes Mellitus type 2 Sudden Cardiac Arrest occurred 9 times (6.6%), while in group without T2DM there were only 4 cases of SCA (1.2%). Hazard ratio (HR) of Sudden Cardiac Arrest associated with T2DM: 5.08 (p <0.01, Fisher's Exact Test).

CONCLUSIONS: In our research group SCA as a complication of ST-segment elevation myocardial infarction appeared rarely - in 13 (2.9%) cases and 5 times more frequently in patients with Diabetes Mellitus type 2 compared to patients without T2DM (6.6% vs 1.3%, HR = 5.08, p <0. 01).
ADD:

The emergency peripartum hysterectomy

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INTRODUCTION: The emergency peripartum hysterectomy, the most dramatic of operations made in present obstetrics, is performed in case of postnatal haemorrhage. When all methods of treatment have been unsuccessful and the haemorrhage is keeping up or when the symptoms of consumption coagulopathy appears and worsens, or the damage of uterus is too serious (and are not suitable) and doesn't give any possibility of saving procedure. The peripartum hysterectomy is performed in advanced pregnancy in the course of delivery, either shortly after the vaginal labour or immediately after caesarean section. The indications for emergency hysterectomy in the past were uterine atony or uterine rupture. Recently a pathology of implantation of placenta is increasing, it is probably related to caesarean section in the past.
PURPOSE: The aim of this studies was to determine the incidence, indications, the risk factors and complications of emergency peripartum hysterectomy (EPH).
METHODS: We analysed retrospectively 16 cases of EPH performed at Pirogow's Hospital in ĹĎĂłdĹş from 2006 to 2013. Data related to demographics, reproductive histories, indications, risk factors for EPH, and postoperative follow-up were obtained by analysis of hospital records.
RESULTS: In 2006-2013 took place 15988 labours, from which 7995 (50%) by caesarean section. The overall incidence of EPH was 0.1 per 1,000 deliveries during the study period. The most common indications of EPH were uterine atony (31,25%), uterine atony coexisting with abormal placentation, uterine atony with coexisting premature separation of placenta (18,75 %), abnormal placenta (18,75%) and others. The risk factors often coexist with each other. Generally there ware: caesarean section in past (43,75%), operation on uterine (31,25%), abrasion of cavity of the uterus (31,25%) and age of mother (31,25%). The most common complications of hysterectomy was haemorrhage (31,25%).Other complications are: disorders of respiratory system (18,75%), disorders of cardiovascular system (18,75%), necessity sequent surgical procedures (18,75%), damage of urinary bladder (12,5%), adnexectomy (12,5%), and ureteral damage (6,25%). Perinatal mortality wasn't observed.
CONCLUSIONS: The most common indication for EPH in our series is uterine atony. The common risk factors for EPH was previous caesarean section. It's important to limit the number of CS in order to decrease the number of emergency

peripartum hysterectomy.
ADD:

Use of stimulants in adolescents with diabetes type 1 - questionnaire study from three departments.

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INTRODUCTION: ESPAD (European School Survey on Alcohol and Drugs) research made on Polish adolescents in May and July 2011 indicates that dissemination of stimulants among young people is worryingly high and has increasing tendency. It is reported that youth that suffers from chronic disease may be more susceptible to risky behaviours.
PURPOSE: The main aim of research was to evaluate the frequency of using stimulants in adolescents with DM1.
METHODS: Study group consisted of 209 patients of Diabetes Clinic at Department of Paediatrics, Oncology, Hematology and Diabetology, Medical University of Lodz (54%), Diabetes Clinic at Department of Paediatrics, Diabetology and Endocrinology, Medical University of Gdansk (35%) and Diabetes Clinic at Independent Public Health Care Institution in Sanok (11%) from two groups of age: 15-16 years (47,12%) and 17-18 years (52,9). Adolescents were examined with annonimous questionnaire used in ESPAD survay.
Control group comprised of healthy young people (12114 polish students) surveyed with ESPAD questionnaire in 2011.

RESULTS: Girls were 48,88% of research group, whereas boys were 51,2% of research group and in control group respectively 50,6% and 49,4%.
Stimulant consumption in last year in group with DM1 was 71,8%, control group 85,7% ($p<0,00001$, test Chi2) and similarly in last 30 days - 47,5% vs. 69,76% ($p<0,00001$, test Chi2).
In last year in group with DM1 54,7% admitted to smoking, in control group 65,6% ($p=0,001$), and in last 30 days - 27,4% vs. 35,9% ($p=0,01$).
Cannabis preparations were used by 18,36% of patients with DM1 vs. 33,1% in control group ($p<0,00001$). Tranquilizers without doctor's prescription was used by 9,6% of patients with DM1 vs. 15,9% in control group ($p=0,01$). In both groups of girls, drugs were used twice as often. Amphetamine was tried by 3,9% of patients with DM1, in control group - 6,76% and 28,2% vs. 46,1% ($p<0,00001$) admitted that tried at least one drug in their life.

CONCLUSIONS: Stimulants consumption in adolescents with DM1 even though is lower than in general population, it is still significant and can have influence on disease course. Every patient should be individually educated in risks which are connected with disease.
ADD:

The comparison of medical and medical rescue students knowledge of rules and practical skills in the interpretation of electrocardiography.

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INTRODUCTION: Electrocardiogram is one of the basic investigations allowing to differentiate myocardial infarction, conduction or rhythm abnormalities. In the course of their studies, medical and emergency medicine students acquire

knowledge of rules and practical skills in the interpretation of electrocardiogram. For instance optimal STEMI treatment should start immediately. Of course it is important to recognize that the mastery of ECG interpretation, one of the most useful clinical tools in medicine, can only occur if one acquires considerable experience in reading ECG's and correlating the specific ECG findings with the pathophysiology and clinical status of the patient.
PURPOSE: Our purpose was comparison of Medical and Medical Rescue students knowledge of rules and practical skills in the interpretation of electrocardiography.
METHODS: The study was conducted on 150 medical rescue and medicine students in Medical University of Lodz. The anonymous and voluntary surveys employed a questionnaire designed by the authors containing 10 single-choice closed questions (5 theoretical about rules and 5 about practical skills). The results of all participants were analyzed.

RESULTS: The purpose of this work was to assess the level of knowledge of electrocardiology. The survey was conducted in a group of 150 students- 87 medicine and 63 medical rescue. 48% were women and 52% were men. Median time on learning EKG was 21-30 hours for medicine and 11-20 for emergency students. The question that was most frequent answered correctly was theoretical question regarding to Inferior Myocardial Infarction (evolving ST-T changes in leads II, III, aVF). The most difficult question was ECG about right bundle branch block .

CONCLUSIONS: Medicine and medical rescue students have similar knowledge of ECG. It is necessary to still improve expertise of ECG.

ADD: This paper is approved by Local Ethical Committee.

A systematic review to assess the relation between metabolic control of type 1 diabetes mellitus (T1DM) in paediatric patients and targeted guideline values of HbA1c among different regions worldwide.

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INTRODUCTION: The guideline values for HbA1c differ among countries, especially when paediatric population is taken into consideration. There is hardly evidence that could assess which guidelines are the most appropriate to accurately control this disease among patients younger than 18 years.
PURPOSE: To compare achieved HbA1c concentrations with targeted guideline values in paediatric patients with T1DM worldwide.
METHODS: Standard systematic review methods were employed. We defined our aim in terms of population (P; n>50), intervention (I; HbA1c measurement), Reference standard (R; guideline values), Outcome (O; HbA1c at study entry), Study Design (S; registries, interventional trials, cross-sectional trials conducted after 2008). Major exclusion reasons were the year of the study and undivided data for children and adult patients among studies' groups. Search for eligible studies was undertaken based on medical reports found in OVID MEDLINE, EMBASE and COCHRANE databases up-to September 2014. Quality assessment of included studies and meta-analysis on extracted data was conducted.
RESULTS: One thousand three hundred sixty-five records were identified throughout database searching. After screening by title and abstract and exclusion of duplicates we included 458 articles for further analysis. Three hundred eighteen were full-text papers and 140 were conference abstracts. After quality assessment we further excluded 422 papers and included 36 (7,86%) for final analysis. Precise data on median/average(SD) age, therapy and T1DM duration, HbA1c were available in 34 (7.4%) of included articles and extracted into predesigned data-extraction sheet.
CONCLUSIONS: In our systematic search we have selected an appropriate material to assess the role of valid guideline values on metabolic control of T1DM among children. Metabolic control efficacy differs worldwide, however this is ongoing study and further analyses will be conducted to ascertain this effect properly.
ADD:

Selected health problems of women in Lodz at the turn of the 19th and 20th century

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INTRODUCTION: The turn of the the 19th and 20th century was a period of rapid development of Lodz. In a relatively short time Lodz has become a multicultural industrial city - Reymont Promised Land. Before the First World War broke out the population of Lodz was about 400, 000 and more than half of them were women. A significant number of women were employed emerging factories, especially textiles. Working conditions have made changed the profile of the demand for medical services.
PURPOSE: Aim of research was to present problems of medical care for women in Lodz in turn of 19th and 20th century, especially problems of women health, like injury incurred while working in factories and gynecological and obstetric diseases.
METHODS: The study was based on source materials: studies about history of Lodz, statistical publications of public healthl and journals: Dziennik â□□RozwĂłjâ□□ and â□□Gazeta Lekarskaâ□□
Methods used in this study were typical for medico-historical studies: comparative, induction and deduction method.
RESULTS: The character of job, the machinery and limited experience of women working in factories resulted many accidents often ending in permanent disability. The contemporary press very often were reporting about accidents at work for example: of pinched fingers, jags hand, eye injuries, fractures or the burns. How health care was prepared for this task? For example: in the one of district of Lodz in 1890, only there was 6 medical practices, 10 paramedics and 15 midwives. The nine years later, these numbers increased to adequately 9, 25 and 17.
In 1913 already 628 medical professionals worked in the city of Lodz.
For persons injured in accidents in factories were assured medical assistance and health insurance provided by the factory Sickness Funds. Also Ambulance Service worked dynamically, provide assistance not only to the injured but also the women who given birth in the "wrong places" (streets, public places). Pregnants could benefit from aid shelters and clinics maternity obstetric - gynecological.
CONCLUSIONS: Despite the difficult conditions at the turn of the 19th and 20th century in Lodz were attempts to improve care for working women, both in terms of diseases caused by accidents at work and gynecological diseases, pregnancy, childbirth and postpartum.
ADD:

Does tonsils removal help obese children to lose weight?

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INTRODUCTION: Tonsillectomy and adenoidectomy are one of the most frequent procedures in pediatric otolaryngology. Two main indications to perform this kind of procedures are: obstruction from enlarged tonsils and recurrent infection. Obesity is also considered to be frequent condition and seems to be related with hypoxia, secondary to air ways obstruction.
PURPOSE: The aim of the study was to determine the groups of children who will benefit from adenectomy versus concatenation of adenectomy with tonsillectomy (adenotonsillectomy); taking into consideration BMI percentile, especially in group of previously obese children.
METHODS: It was a retrospective longitudinal study of 120 patients who underwent adenectomy or adenotonsillectomy in 2011, with 2-year follow-up. Metadata included BMI, age, sex, steroids use before and after the surgery (binary), as well as

the presence of sleep apnea (binary). We ranked BMI according to 8 percentile intervals based on growth chart for boys and girls considering appropriate age (pBMI, compartments: [A] <3; [B] 3-10; [C] 10-25; [D] 25-50; [E] 50-75; [F] 75-90; [G] 90-97; [H] >97 percentiles). Initial BMI percentile compartment (pBMI1) was compared with BMI percentile compartment after 2 years (pBMI2). The difference (?pBMI) was defined as a subtraction of BMI compartment in follow-up (pBMI2) and initial BMI compartment (pBMI1).
RESULTS: Initially 17,5% of patients was underweight, 10,8% overweight, 12,5% obese. Wilcoxon Rank Test proved significant difference between pBMI1 and pBMI2 for all the patients (pBMI2 increased, Z = -3,331, p = 0,001). There were statistically significant differences in ?pBMI between the groups (H(2) = 19,014, p = 0.000) and the change was strongly negatively correlated initial weight category (as rank was increasing from [A] to [H]; Spearman's rho coefficient = -1,381; p=0,000). Average ?pBMI was in obesity-overweight -0,36 (SD=1,76), in normal-underweight +0,89 (SD=1,82). For better understanding this phenomenon we created more specific groups, according to pBMI1. Wilcoxon signed-rank test showed statistical significant difference between pBMI1 and pBMI2 in groups with pBMI1: [A] (Z=2,93; p=0,003), [B] (Z=2,59; p=0,09), [C] (Z=2,2; p=0,03), [H] (Z=2,2; p=0,03), (average ?pBMI: +1,81(SD=1,7), +1,67(SD=1,69), +1,05(SD=1,83), -0,81(SD=0,98)) and no difference in groups with pBMI1: [D] (Z=0,62; p0,53), [E] (Z=1,3; p=0,19), [F] (Z=0,66; p=0,5), [G] (Z=1,6; p=0,1). There was no Spearman's correlation of ?pBMI and sex (R=0,16; p=0,07), age(R=-0,17; p=0,06), steroids use before (R=0,05; p=0,55) and after surgery (R=0,13; p=0,16) and sleep apnea (R=-0,1; p=0,26), also in pBMI1 subgroups. Sleep apnea was diagnosed only in 1 out of 120 patients.
CONCLUSIONS: There is relation between tonsils removal with change in BMI percentile. After tonsillectomy or adenotonsillectomy children from extreme percentile of BMI move to central ones. The biggest benefit from these procedure have children who previously was between 0 and 25 of BMI percentile (increase) and >97 (decrease). Sleep apnea and other factors like sex, age, steroids use before and after procedure seems to have no relation with enlarged tonsils.
ADD:

Evaluation of knowledge of electrocardiograms among doctors during specialization in internal medicine or cardiology and medical students of the Faculty of Medicine.

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INTRODUCTION: Different types of heart disease is currently the most common cause of deaths, not only in Poland, but also in Western Europe. In view of the increasing number of deaths on the background of cardiac, there is a need for a rapid and non-invasive assessment of cardiac, often in an outpatient setting. Electrocardiography gives you the possibility to help direct diagnostic procedure and often put the correct diagnosis. Constitutive seems so knowledge of ECG interpretation among doctors, especially that misinterpretation can lead to the implementation of misconduct saving the patient's life and health.

PURPOSE: The aim of the study is to assess the knowledge of ECGs among both physicians in the course of specialization in cardiology and internal medicine as well as fifth and sixth year medical students, and to compare the knowledege of above topic among the study groups.
METHODS: So far, the survey has been conducted among 143 fifth and sixth year students of Medicine and Medical-Military from the Medical University of Lodz and of the Jagiellonian University of KrakĂłw and 120 doctors in the course of specialization in cardiology and internal medicine.
RESULTS: Analysis of the results has shown a statistically significant difference in the number of correct answers to all questions within the two test groups of respondents in favour of the doctors in the course of specialization (p <0.001). Most errors have appeared in the interpretation of ECG with pacemaker. The number of hours devoted to study cardiology has significantly correlated with the number of correct answers. There has been no significant differences in the level of knowledge of ECG among women and men.

CONCLUSIONS: The study has shown that a group of doctors in the course of specialization in cardiology showed the best knowledge of ECG interpretation. On the other hand, the results are not satisfactory in each group.
ADD: This paper is approved by Local Ethical Committee.

An outline of the historical development of parenteral nutrition

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INTRODUCTION: History of medicine covers a lot of ground-breaking moments associated with the treatment of people and the discovery of new, effective drug. In addition, also includes breakthroughs concerning the introduction of a new route of administration of the drug. Currently, we are not able to imagine the situation that the drugs are administered by the oral route only. Administration of a drip infusion or injection of a drug substance is a widely used method of distribution to the patient. Another milestone in the treatment of patients was to note the important role in the treatment process is the nutritional status of the patient, and how significant is the appropriate care of a balanced diet. In the case of some diseases were taken also attempts to parenteral nutrition.
PURPOSE: The aim of the study is to present the history of the development of parenteral nutrition and its impact on the health of patients in whom it was used and an indication of the advantages of such action.
METHODS: The attitude of the study were academic papers indicating the development of methods of parenteral nutrition. In this study were used methods typical of historical and medical research: descriptive, comparative, analytical.
RESULTS: With the progress of the construction of the human body awareness, has attracted attention to the possibility of administration of various substances into the bloodstream. And so in 1658 Wren tested the application in the form of injections of beer, wine or opium into the blood of dogs. Unfortunately, the results were not satisfactory. Subsequent attempts undertaken 20 years later - in 1678 Courten undertook the administration of the drip vinegar and olive oil also into the body of the dog. In the nineteenth century, during the cholera epidemic patients were treated by intravenous infusions of fresh water and saline solutions and milk. In the early twentieth century is noticeable improvement in efficacy of administered via a parenteral nutrient: supply of glucose as nourishment after operation (1911, Kausch), supply of a solution of a fatty (1920, Yamakawa) and, finally, application of proteins, dextrose and fat emulsions (1945, McKibbin, Hegsted, Sold). The full composition of mixtures for parenteral nutrition was developed in the late 60th twentieth century and since than the parenteral nutrition was introduced to the standards of hospital treatment in the United States and Europe and is used successfully today.

CONCLUSIONS: Taken and perfected over the centuries method of parenteral nutrition are an important achievement in the care of seriously ill patients which increased significantly their chances of survival in case of the disease in the course of which are clearly indicated.
ADD:

Pol Sleep Heart Study - Sleep Apnea in patients with stable coronary artery disease

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INTRODUCTION: Sleep apnea is the presence of intervals between breaths during the sleep that last longer than 10 sec.

Breathing disorders during the sleep are common in patients with heart and vessels diseases, as arrhythmias, in particular- atrial fibrillation, heart failure, ischemic heart disease, hypertension. Predisposing factors are obesity and smoking. The most common type of sleep apnea is the obstructive sleep apnea (85% of cases). Central apnea is caused by the disturbances of the respiratory drive. So far in Poland sleep apnea has been diagnosed only in 10% of men and in less than 1% of women. The basic diagnostic tool is the polysomnography. Through polisomnography it is possible to evaluate breathing during the sleep, measure the pulse oximetry, assess the prevalence of sleep apnea depending on the position during sleep, evaluate ECG and hipnogram.
PURPOSE: The aim of the study is to evaluate if the presence of the sleep apnea in patients with stable coronary artery disease is related with the advancement of coronary artery disease.
METHODS: The research group are patients with stable coronary artery disease, preserved left ventricular systolic function, BMI<30 kg/m2, well controlled blood pressure, with no valve defects or atrial fibrillation. Each patient has had polysomnography done. According to AHI (apnea/hipopnea index) the sleep apnea has been defined as mild (AHI>=5 and <15), moderate (AHI 15-30) and severe (AHI>30). In patients with AHI<5 sleep apnea has not been diagnosed. The diagnosis of sleep apnea has to meet one of the two conditions: symptomatic patient with AHI>5 (loud snoring, that wakes up during the night, trouble sleeping, excessive daytime sleepiness) or asymptomatic patient with AHI>15. The analysis of breathing disturbances has been made in relation with the advancement of coronary artery disease.
RESULTS: 10% of the examined patients have AHI<5; 30%-AHI between 5 and 15; 60%-AHI>15. In 80% of the patients the sleep apnea can be diagnosed. The value of AHI ranges from 1,6 to 53,7. 100% patients with AHI<5 do not have atherosclerotic lesions in coronary arteries. 50% of the patients with AHI 5-15 only have marginal lesions. 40% patients with AHI>15 present multivessel coronary artery disease in angiography, 25%-singlevessel coronary artery disease.
CONCLUSIONS: Sleep apnea in patients with stable coronary artery disease is associated with the advancement of atherosclerotic lesions in coronary arteries.
ADD: This paper is approved by Local Ethical Committee.

Incidence of partial remission depending on the age at onset of disease in children with type 1 diabetes

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INTRODUCTION: Diabetes mellitus type 1 (DM1) is an autoimmunologic disorder, in which destruction of Ă□-cells in pancreatic islets takes place. Institution of exogenous insulin leads to â□□Ă□-cells restâ□□, what in some patients results in partial remission and improvement in metabolic control of disease. Epidemiologic data suggest increase in morbidity rate of DM1 in all age groups with the highest increase noted in the youngest children.
PURPOSE: To evaluate correlation of partial remission incidence and the age at onset of disease as well as analysis of parameters related to presence of remission.
METHODS: The study group consisted of 372 children - 179 (48,1%) girls and 193 (51,9%) boys treated in Outpatient Clinic of Diabetology in the Department of Paediatrics, Oncology, Hematology and Diabetology of Medical University of Lodz between 2006-2013. Median age was 8.1 (4.6 - 11.6) years. Incidence of remission was evaluated on the basis of daily insulin intake in 6., 12. and 24. month of DM1 (definition of remission ?0.3 IU/kg). Patients were divided into 4 groups depending on the age quartiles (Q1: 0 - 4.6 ys, Q2: 4.7 -8.1 ys, Q3: 8.2 - 11.6 ys, Q4: 11.7 - 17.4 ys).
The analysed factors of remission were: age, sex, C-peptide concentration, HbA1c, BMI, levels of autoantibodies, pH and BE at the onset of DM1.

RESULTS: Incidence of remission was 36% (in 134/372 patients). In a whole group remission was more frequent in boys than in girls (41% vs 31%, p=0.04) and in patients without ketoacidosis at the onset (39% vs 27%, p=0.045). A tendency towards a higher C-peptide level in a group with remission in comparison to the patients without remission was noticed (0.28 ng/ml vs. 0.2 ng/ml, p=0.08). Incidence of remission in groups of quartile for age was respectively: Q1-27%, Q2-45%, Q3-37% and Q4-35% (p=0.095). In younger groups (Q1 and Q2) remission was more frequent in boys (33% and 56%) than in girls (21% and

32%) but in Q2 the difference was statistically significant (p=0.03). In the patients in group Q3 with remission in comparison to the patients without remission a higher BMI index (18.31 kg/m2 vs. 16.91 kg/m2, p=0.024) and lower GADA level (97 IU/ml vs. 256 IU/ml, p=0.018) were present.
CONCLUSIONS: Level of GADA autoantibodies, sex of patients, BMI index and ketoacidosis at onset of disease seem to be the strongest determinants of the presence of partial remission in children with type 1 diabetes.
ADD:

Femoral hernias in clinical practice

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INTRODUCTION: Hernias are a significant part of general surgery. They are often overlooked, and can result in serious adverse effects which can be fatal. In medicine there are multiple types of hernias. Our project explores the topic of femoral hernias.
PURPOSE: The aim of our investigation is to highlight the clinical significance of circumstances in which femoral hernias develop. These factors consisted of age, sex, location, length of hospitalisation and the occurance of gangrene, in comparison to whether the hernia was strangulated or not.
METHODS: The statistics were taken from the patients' database of WojewĂłdzki Szpital Specjalistyczny im. Marii SkĹodowskiej Curie in Zgierz collected between the years 2001-2013, with the exception of the year 2002 (database empty). However, not all patients had a full record of data included their medical history.
The investigation was conducted using retrospective methods of balancing and correlating the data. The following results were obtained.
RESULTS: â˘ 59 out of 84 (70,24%) patients suffered from strangulated hernias.
â˘ 25 out of 69 (36,23%) patients suffered from right-side strangulated hernia.
â˘ 11 out of 69 (15,94%) patients suffered from right-side non-strangulated hernia.
â˘ 22 out of 69 (31,88%) patients suffered from left-side strangulated hernia.
â˘ 11 out of 69 (15,94%) patients suffered from left-side non-strangulated hernia.
â˘ 12 out of 21 (57,14%) male patients suffered from strangulated hernia.
â˘ 47 out of 63 (74,6%) female patients suffered from strangulated hernia.
â˘ The Average age of patients with strangulated hernias is 70,95 years of age.
â˘ The Average age of patients with non-strangulated hernias is 63,44 years of age.
â˘ 21 out of 59 (35,59%) patients who developed a strangulated hernia, suffered from gangrene.
â˘ The average hospitalisation time for patients with a strangulated hernia is 9,22 days, and 4,12 days for non-strangulated cases.
CONCLUSIONS: In conclusion the results clearly identify that in both sexes strangulated hernias are more common. Furthermore, hernias are more likely to develop among female and elderly patients. Additionally there is no correlation between the location of the hernia and its occurance. What's more, the time spent in hospital by patients with strangulated hernias is approximately twice as long in comparison with those patients suffering from a non-obstructive hernia. Finally, one third of all strangulated hernia cases arise in patients suffering from gangrene.
ADD: This paper is approved by Local Ethical Committee.

Sour and Sweet History of Sulphonylurea Treatment in Diabetes

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INTRODUCTION: In historical medical literature first complete description of diabetes was made by Aretaeus of Cappadocia who called it of â□□melting down of the flesh and limbs into urineâ□□. For centuries, it was believed that when entering this â□□pissing evilâ□□ (Willis, 1674) all hope must be abandon and patient will die in 3-6 years (Freudtner, 2003). In 1921 the ultimate and miracle treatment for diabetes was found - the insulin - and â□□patients could live as long as normallyâ□□ (Allen, 1930). Nevertheless, after 80 years of successful diabetes treatment history could still surprise usâ□Ś
PURPOSE: To discover breakthroughs in nowadays diabetes treatment history.
METHODS: Retrospective analysis of literature - Ch. Freudtner, 2003; M. Bliss, 1982; T. Deckert, 2004; M. Marino, 2009; ; Iafusco, 2002; Hattersley, 2004; Mlynarski, 2007 and others - and the collection of the eyewitnesses' observations.
RESULTS: The first breakthrough in the history of diabetes after insulin discovery was discovering of type 2 diabetes (Himswoth, 1930) which was characterized by a lack of sensitivity to insulin. Accidental finding that one of the drug tested for thyphoid fever may induce hypoglycemia in animals (Janbon, 1942) lead to second breakthrough - first oral drug for treatment for diabetes which in 1955 were commercially available. Nevertheless, this â□□miracleâ□□ was found to be teratogenic, impair kidney and liver function and accelerate a loss of the pancreatic beta cells thus it occurred in some diabetes experts' bad book.
In 2002 following new type of diabetes was discovered - neonatal diabetes. Half century later, prof. Hattersley and his research team from Exeter University made their small step but one giant leap for childhood diabetes treatment - he proved that sulphonylurea may treat neonatal diabetes more effectively than insulin therapy. This changed clinical management for such patients in the whole world. How such breakthroughs can change life of common people may serve an example of little polish girl who was diagnosed with diabetes at the age of 3 weeks. After many years of painful insulin therapy and poor glycemic control, in 2005 after above-mentioned discovery - she was successfully switched to sulfonylurea.
CONCLUSIONS: Learn your lessons from history of your own research field: even if it seems that everything is known there is still a lot to discover.
ADD:

Willem Johan Kolff - the father of hemodialysis. The development of hemodialysis since the Second World War until today.

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INTRODUCTION: Willem Johan Kolff, a Dutch medicine doctor (14.02.1911 - 11.02.2009), built the first hemodialysis device in 1943. After the Second World War apparatus for hemodialysis and technique of dialysis process were constantly improved, thus both represent a high technological level now.
PURPOSE: To present Dr Willem Kolff as a determined and creative scientist as he was, and to show the development of hemodialysis technique over the years.
METHODS: Analysis of the information from literature.
RESULTS: Doctor Kolff, a graduate of the Medical University of Leiden, was one of the pioneers in the creation of artificial organs. In 1943 , during the German occupation, he built the first hemodialysis device. He created it using widely available materials, under inspiration of dialysis experiments carried out after the First World War. Since then dialysis technique has been permanently improved and stands at high level now. As a consequence hemodialysis allows patients with the end-stage renal disease to live and gives them chance to survive until kidney transplantation. Besides the artificial kidney, Dr Kolff worked on a number of projects of artificial organs, including the artificial heart. His imagination and engineering talent combined with the knowledge of human physiology allowed him to save the lives of millions of people. With hemodialysis it became possible to remove harmful waste products, excess water, toxins and drugs from blood. During the process, blood circulates repeatedly between the patients body and the dialyzer, which acts as an artificial kidney.
CONCLUSIONS: The invention of Dr Kolff gave renal failure patients hope and a postponement of severe complications related to chronic kidney disease and death. Evolution of hemodialysis over the years improved the process and had positive

impact on patients lives.
ADD:

The analysis of factors modulating methotrexate treatment in children with acute lymphoblastic leukemia

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INTRODUCTION: The administration of high-dose methotrexate (HD-MTX) is introduced to patients with acute lymphoblastic leukemia (ALL) to increase survival rates and to prevent from recurrence to CNS, bone marrow and testis. Therefore gathering data concerning factors influencing this drug blood level is necessary for broad evaluation of MTX control.
PURPOSE: The aim of the present investigation was to determine the influence of various factors (body weight, height, BSA, HGB, WBC, ALT, AST, CRP, total serum protein, blood urea and creatinine) on the MTX blood level in patients with ALL of the Department of Pediatrics, Oncology, Hematology and Diabetology of the Medical University of Lodz.
METHODS: This retrospective study was based on patients' medical documentation of children with ALL treated according to ALL-IC BFM 2002 protocol, from February 2007 to April 2012.
RESULTS: Two hundred fourteen infusions of MTX were supplied to 56 patients, 25 female and 31 male, age 1 to 208 months. All analyzed variables (apart from the concentration of total serum protein) exhibited different from a normal distribution ($p < 0.0001$ in the Shapiro-Wilk test). Therefore the Spearman's rank correlation test was performed. The results of the test revealed that blood level of MTX was correlated with body weight ($r=0,546$), height ($r=0,351$), BSA ($r=0,333$), Hb ($r=-0,487$), ALT ($r=0,377$), AST ($r=0,379$) and CRP ($r=0,486$). Data dependency of ALT, AST and CRP occurred, however, only 24 hours after MTX supply, and in other measuring points it was no longer statistically significant.
U Mann-Whitney test demonstrated no effect of sex on the selected parameters.
The levels of almost all parameters - weight, height, BSA, the concentration of MTX after 24 hours, the concentration of serum hemoglobin, WBC, CRP, urea, ALT, AST - depended on the conducted treatment protocol (mM or Block-HR). It might have been connected with higher doses of MTX used in the Block-HR protocol.
CONCLUSIONS: Obtaining the therapeutic concentration of MTX is influenced by body weight, height, BSA, HGB, ALT, AST, CRP and the introduced treatment protocol (mM or Block-HR).
Clinically the consequences of inbalanced MTX level can be serious when they concern the vital organs and systems or significantly interfere with the planned course of treatment.

ADD:

HYDROGEN SULFIDE (H2S) IN GASTROPROTECTION AGAINST WATER IMMERSION AND RESTRAINT STRESS-INDUCED GASTRIC LESIONS

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INTRODUCTION: Hydrogen sulfide (H2S) plays important role in human physiology, exerting vasodilatory, neuromodulatory and anti-inflammatory effects. H2S has been implicated in the mechanism of gastrointestinal (GI) integrity but the contribution of this gaseous mediator to the gastroprotection against stress-induced gastric lesions has been little elucidated.

PURPOSE: We determined the effect of H2S precursor L-cysteine, H2S-donor NaHS and H2S synthetizing enzyme (CSE) activity inhibitor- D,L-propargylglycine (PAG) on the formation of acute gastric lesions and changes in gastric blood flow (GBF) induced in rats by 3.5 h of water immersion and restraint stress (WRS). Moreover, the role of endogenous prostaglandins (PGs) and neuropeptide released from sensory afferent nerves such as calcitonin gene-related peptide (CGRP) in the mechanism of gastroprotection induced by H2S was examined.
METHODS: Groups of rats, treated with vehicle, NaHS or L-cysteine and exposed to 3,5 h of WRS received the pretreatment with either: 1) nonselective (indomethacin) and selective cyclooxygenase(COX)-1 (SC-560) or COX-2 (rofecoxib) inhibitors and 2) capsazepine to inhibit vanilloid receptors (VR-1) activity and capsaicin to induce sensory nerves ablation. The gastric mucosal expression of mRNA for COX-1 and COX-2, CGRP and tumor necrosis factor (TNF-?) was determined by PCR.
RESULTS: Both, NaHS and L-cysteine dose-dependently attenuated gastric lesions induced by WRS and significantly increased GBF. These effects were reduced when L-cysteine and NaHS were co-administered with PAG. Capsaicin denervation and application of capsazepine reduced gastroprotective effect of H2S donor and precursor. Inhibition of COX-1 and COX-2 diminished beneficial action of H2S in gastric mucosa of rats exposed to WRS. These effects were accompanied by the increased mRNA expression for COX-1, COX-2 and CGRP. The increase in the expression was reversed by the co-administration with PAG.
CONCLUSIONS: We conclude that H2S exerts gastroprotection against WRS-induced gastric lesions by the mechanism involving the enhancement in gastric microcirculation mediated by endogenous PGs, the activation of VR-1 receptors and sensory afferent nerves releasing CGRP.
ADD: This paper is approved by Local Ethical Committee., This work is a part of the doctoral thesis.

Education in type 1 diabetes mellitus as a challenge for children, their parents and doctors.

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INTRODUCTION: Patient with diabetes mellitus is treated by multidisciplinary team: diabetologist and other specialists, educational nurse, dietitian and psychologist. Nevertheless successful therapy is impossible without patient's and his family involvement.

PURPOSE: Evaluation of the influence of theoretical knowledge and self-control behavior among children and their parents on metabolic compensation of diabetes mellitus.
METHODS: The study group consisted of 69 children with type 1 diabetes mellitus aged from 7 to 18 year old (36 boys) and 61 patient's parents. Children and parents were polled during the visits in Diabetological Outpatient Clinic. Questions were related to theoretical knowledge and self-control behavior - results were evaluated by the percentage of correct answers. Metabolic compensation was assessed by the result of HbA1c level from the last 3 months.
RESULTS: The average age in the study group was 13.5 years. The average duration of the disease was 4.35 years. There was a positive correlation between the level of HbA1c and the patient's age (r=0,27; p=0,045). The average level of HbA1c was rising with the age. The differences were statistically significant. Percentage of the correct answers from theoretical knowledge correlated positively with children's age (r=0,39; p=0,001), whereas the percentage of answers regarding self-control was decreasing with the age (also with statistical significance). In the group of parents a negative correlation (r=-0,33, p=0,15) between the result from knowledge and children's age was established. There was no influence of the child's result from the theoretical knowledge on his HbA1c level, but the HbA1c level highly negatively correlated with the percentage of the correct answers regarding children's self-control (r=-0,36, p=0,006).
CONCLUSIONS: Theoretical knowledge and proper self-control of the children with type 1 diabetes mellitus improve the metabolic compensation of the disease. Patients involvement affects the results of the treatment significantly more than involvement of their parents.Proper self-control matters considerably more for metabolic compensation than theoretical knowledge. Despite the increase of knowledge, patient's mobilization to optimal treatment of the diabetes mellitus

decreases with the age. Considering management of patients with diabetes mellitus it is advisable to better motivate children (especially teenagers) to everyday control.
ADD:

Complement factor H autoantibodies B cell epitope analysis in autoimmune haemolytic uremic syndrome

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INTRODUCTION: One of the most common factors evoking acute renal failure in children is haemolytic uremic syndrome (HUS), the rare form of which, evolved through an autoimmune mechanism and mediated by autoantibodies against the complement factor H is the school-age children affecting atypical HUS (aHUS). Nevertheless it's not known, what mechanism generates the production of the anti factor H antibodies, which play a pathogenetic role in the disease. It also remains a question, through what steps these cause the uncontrolled activation of the complement alternative pathway.
PURPOSE: To understand the function of the autoantibodies the exploration of their B cell epitope specificity would provide essential data, therefore our aim was the B-cell epitope mapping of the anti-FH autoantibodies.
METHODS: We performed our investigations through the analysis of 5, anti-FH IgG positive patients' sera taken in the first episode of the disease, as control sera of healthy children and mixed immunoglobulin (IVIG) served. We synthesized the 19. and 20. CCP (complement control protein) domains, as 15 amino acid long, overlapping peptide sequences on consistent, poliethylene pins as surface. The amount of reacting antibodies with certain peptides was measured by altered ELISA method. As potential epitopes those regions were identified, where by neighbour peptides augmented reactivity was observed exceeding 50% according to background reactivity.
RESULTS: In control samples (both healthy children and IVIG) enhanced reactivity was measured in three regions (AA1142-1156, AA1182-1193 and AA1193-1216). In the named regions appreciable antibody binding was observed in the patients' sample, and in two more, in controls undetected positions (AA1157-1171, in 4/5 patient; AA1107-1121, in 2/5 patient).
CONCLUSIONS: Our results are corresponsive to the lately published study, which reports about anti-FH autoantibodies binding to more regions of factor H in healthy controls. However, we as first identified specific epitopes localised on the 19th and 20th CCP domains in aHUS patients, the further analysis of the structure and occurrence of which leads to the exploration of the autoantibody productions' mechanism or more diagnostic improvements.
ADD:

Differences in L-asparaginase treatment in pediatric and adult patients with Acute Lymphoblatic Leukemia

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INTRODUCTION: Allergic reaction to native L-asparaginase and the following decrease of its activity may force physicians to discontinue this medication from treatment of Acute Lymphoblastic Leukemia (ALL). This however, may have a major influence on the odds of overall survival (OS) of children with ALL.
PURPOSE: The aim of the study was to assess the relationship between L-asparaginase activity and anti-asparaginase antibodies titer in different age groups and their possible influence on OS.
METHODS: A group of 99 pediatric and adult patients diagnosed with ALL were enrolled into the study according to serum

sample availability. Patients' serum samples were collected in cooperation with 9 major Hematology Clinics in Poland. L-asparaginase activity and anti-asparaginase antibodies were systematically measured in children and adults with ALL during the intensive phase of treatment. Clinical data were available for pediatric patients, for example age at diagnosis, OS and presence of common mutations (IKZF1, BCR-ABL, TEL-AML). Activity was measured with a colorimetric assay. IgM and IgG class anti-L-asparaginase antibodies titers were measured using ELISA . Therapeutic level for L-asparaginase activity was established as 100 U/l. IgM and IgG were considered as positive if their levels exceeded 4,81 ÂĽg/ml and 31,67 ÂĽg/ml respectively.
RESULTS: In the group of 99 patients 52 were children treated with BFM ALL 2009 and 47 were adults treated with PALG6. Median age at diagnosis was 4.37 (range 0.71 - 18.15) and 33.58 (range 18.24 - 75.34) for children and adults respectively. Therapeutic levels of L-asparaginase were achieved in 78.85% of children and 74.47% of adults (p=0.6067). Significant differences of antibody presence between children and adults were noted both for IgM (18.75% vs 53.85%; p=0.0012) and IgG (0.00% vs 10.26%; p=0.026). Among children allergic reaction for native L-asparaginase was connected with shorter OS from 2.01 years in children without allergy to 1.17 years.
CONCLUSIONS: The study proved that immunological response for treatment with native L-asparaginase differs between age groups. Older patients have more often positive response in immunoglobulin IgM or IgG on L-asparaginase infusions. It might have an influence on OS, as shown in representative group of children.
ADD: This paper is approved by Local Ethical Committee.

Sexual Function of Primiparous Women After Cesarean Section and Normal Vaginal Delivery

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INTRODUCTION: There is controversy over the effect of mode of delivery and sexual function.
PURPOSE: To compare sexual function between two groups of women who had Normal Vaginal Delivery (NVD) and Cesarean Section (CS).
METHODS: In the cross-sectional internet survey of two groups of healthy women, with atenatally normal singleton pregnancies, who underwent NVD (n= 192) or CS (n= 114), have been studied with Female Sexual Function Index (FSFI) questionnaire up to 24 months after delivery. There were estimated six domains of sexual fucntion, including desire (questions 1,2), arousal (question3,4,5,6,), lubrication (questions 7,8,9,10), orgasm (questions 11,12,13), satisfaction (14,15,16) and pain (17,18,19). Final score is between 2-36 points. Due to Weigel and company under 26.55 points we diagnose sexual disfunction. Apart from FSFI questionnaire we asked a few more questions about: the period of time to return to sexual activity, breast feeding, week of pregnancy when delivery was, episiothomy, lubricants, methods of contraceptive, drugs and age.
RESULTS: There were no statistical significant diferences in sexual function between CS and NVD up 2 years after delivery(p=0,29). Sexual disfunction appeared in 35.09% in the CS group and 28,42% in the NVD group. About 67 % of women restart their sexual activity during the first 12 weeks after childbirth. The most popular methods of contraceptive were condoms (45,41 %), coitus interruptus (18.92%), 16,76 % were not using any method of contraceptive. 17,30% were using more than one method of contraceptive.
CONCLUSIONS: Due to our study CS is not preferred to NVD in regard to preserving normal sexual functioning.
ADD: This paper is approved by Local Ethical Committee.

QuickDASH outcome assessment of peripheral nerves' isografts of the upper extremity: a cross-sectional telephone survey.

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INTRODUCTION: Influence of cellular, vascular and metabolic peripheral nerve regeneration factors cause that autogenous nerve grafting is constantly a gold standard in neurosurgery, although its expendability. The 11-item disabilities of the arm, shoulder and hand questionnaire (QuickDASH Outcome Measure) is accurate tool that can be used to measure physical function and symptoms in people with any of several musculoskeletal disorders of the upper limb instead of the 30-item survey with similar precision.
PURPOSE: This was a cross-sectional observational study that aimed to assess quantitatively the outcome of autogenous nerve grafting surgeries at the Department of Neurosurgery and Peripheral Nerve Surgery, Medical University of Lodz, Poland.
METHODS: We conducted telephone survey of patients that underwent 44 nerve isografting surgeries on upper extremity since January of 2008 to December of 2012. Survey methodology was based on QuickDASH questionnaire and involved 11 items according to manual by Kennedy et al. Eligibility criteria included reachability and maintenance of logical verbal contact. Statistical analysis included elements of descriptive and nonparametric statistics.
RESULTS: Based on complex results we present analysis of QuickDASH disability-symptom score, and its trending plotted against time between the survey and surgery, kind of damaged nerve, number and lengths of grafts as well as duration of surgery. We also present analysis for each item and review the literature in order to compare the distributions of score for the same technique as well as nerve allografts and nerve transfers.
CONCLUSIONS: Peripheral nerves' isografts have relatively high QuickDASH disability-symptom score, and this is in accordance with routine practices. Despite the progress of research, none of compared biomaterials was so efficient as autogenous nerve grafting.
ADD:

Risk Factors for Early Mortality at Intensive Care Unit among Patients Undergoing Sustained Low-Efficiency Dialysis

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INTRODUCTION: Patients with acute kidney injury at Intensive Care Unit (ICU) are treated more frequently with one the newest renal replacement therapy method called sustained low efficiency dialysis (SLED).
PURPOSE: The aim of the study was analysis of risk factors for early death among ICU patients undergoing continuous renal replacement therapy with SLED.
METHODS: Study group composed of patients treated at ICU in University Hospital No 1 in Lodz between years 2009-2013 undergoing continuous renal replacement therapy with SLED. The analysed death risk factors were age, sex, comorbidities (i.e. diabetes, hypertension) and laboratory test results. The analysis focused on first and last measurement of the above-mentioned factors as well as counted difference between these two timepoints (to determine parameters trend). Bonfferoni correction for multiple testing was used for laboratory results analysis.
RESULTS: The study covered 216 patients (58.24% men). Most of the patients died (89.56%). All patient with previously diagnosed arterial hypertension (HA) died whereas those without HA survived in 86.43% (p=0.0080). Survivors were significantly younger (61.28+/-15.38 years vs 46.16+/-18.38 years p=0.0005).
Among patients who survived platelets count trend and last measurement of platelets count were higher than in those who died (mean difference (MD) 86.90+/-155.65 103/mL vs MD -66.68+/109.37 103/mL p=0.0011; 221.42+/-147.90 103/mL vs 101.16+/-81.22 103/mL p=0.0348 respectively). Higher percentage and count of monocytes in last measurements were the

attribute for survived patients (7.99+/-4.69% vs 3.49+/-3.65% p=0.0038; 0.89+/-0.43 103/mL vs 0.45+/-0.55 103/mL p=0.0106 respectively). For patient who survived SLED therapy platelet distribution (PDW) width was decreasing in contrast to deceased patients whose PDW was rising suggesting greater platelets turnover (-0.81+/-2.81% vs 2.18+/-2.76% p=0.0133).
In multivariate Cox regression analysis, factors associated with earlier death were: age (HR=1.0132, p=0.0152), disorders of glucose metabolism - diabetes previous to admission or hyperglycemia > 200mg/dl at ICU (HR=1.5818, p=0.0077) along with low number of platelets in the last measurement (HR=1.0191, p=0.0457).

CONCLUSIONS: Factors increasing risk of death among patients undergoing continuous renal replacement therapy in ICU are age, observed during treatment decrease in platelets, as well as disorders of glucose metabolism. Our results suggests that platelets disturbances may greatly contribute to poor outcome of the therapy with SLED.
ADD:

Opinions of nephrologists on the efficacy and tolerance of statins in chronic hemodialysis patients

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INTRODUCTION: In contrast to the general population and patients at early stages of chronic kidney disease the results of large randomized clinical trials have not confirmed benefits of statin therapy in dialysis patient with respect to the reduction of cardiovascular morbidity and mortality. Interestingly, despite the lack of apparent benefit recent surveys have shown that statins are still routinely used by most nephrologists in dialysis patients.
PURPOSE: The aim of the study was to analyze the attitudes of nephrologists towards statin use in chronic hemodialysis patients.
METHODS: Self-designed questionnaire, consisting of 18 questions, was distributed among 46 nephrologists directly taking care of chronic dialysis patients. The survey contained an introduction with a brief description of the results of 3 large randomized, prospective, multicenter studies that investigated the effects of statin in dialysis patients (4D, AURORA and SHARP trials). The physicians were asked for an opinion and short interpretation of study results. Furthermore, the questionnaire included questions about monitoring of safety and efficacy of statin therapy and dose adjustment in dialysis patients. Other questions were focused on doctor's previous experience with side effects of statins and their opinion about dose modification in case of surgery or concomitant disease such as diabetes and chronic hepatitis
RESULTS: Nephrologists reported those 37% dialysis patients were prescribed statins mostly for secondary prevention of cardiovascular events. Atorvastatin was a preferred statin chosen by 96% nephrologists. Most doctors (74%) prescribed same dose of statin in both predialysis and dialysis patients. 76% of doctors answered that there was no need to change statin dose before elective surgery. Reduction or discontinuation of statin was done mostly due to comorbidities such as chronic hepatitis (35% and 22%, respectively). 63% of physicians have observed at least one case of increased aminotransferase activity caused by statins. Myopathy was observed slightly less often (59%). 58% of nephrologists did not inform dialysis patient about uncertain benefits of statin treatment.
CONCLUSIONS: Statins are still considered a safe and effective lipid-lowering therapy in dialysis patients by most certified nephrologists despite a lack of evidence supporting their use that has come from hard endpoint-oriented trials.
ADD: This paper is approved by Local Ethical Committee.

Can I go to sleep now?

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INTRODUCTION: Cancer diagnosis in child upends life of their parents. Sleep wake that might be triggered by this situation may have large influence on their responsibilities and decisions making processes.
PURPOSE: The aim of the study was to analyse changes of sleep quality in parents of children diagnosed with different types of neoplasms.
METHODS: Parents of children during anti-cancer treatment were asked 22 questions. A group of 15 mothers or fathers took part in the anonymous survey assessing changes in quality of sleep between a time before diagnosis and the present day. Questions were divided in two sections concerning general information about child's disease, employment and more detailed about sleep quality. Data were further analysed with Wilcoxon and U Mann-Whitney tests. Collected data are preliminary for larger group of parents.
RESULTS: In the study 13 mothers and 2 fathers were included. Their children were boys in 73.3% (11) of cases. Main diagnosis was Acute Lymphoblastic Leukemia (30%) or neoplasms classified as others (46.7%). 60% (9) children were between 6 to 18 years old. 2 parents became unemployed since the diagnosis and the change of employment in the group was statistically significant (p=0.0004). Financial status worsened in 47% (7) parents. 60% (9) of parents does not need to drink more than two cups of coffee to stay awake and 66.7% are non-smokers. One person needs to use drugs to fall asleep. 60% (9) negated any mistakes made at work caused by lack of sleep. Only 20% (3) declared forgetting about responsibilities more than 3 times a week. Surprisingly present quality of sleep assessed in scale from 0, as the worst to 5, as the best, improved significantly when compared with the time from before the diagnosis (4.60 vs 2.73; p=0.0017).
CONCLUSIONS: Improvement in sleep quality after cancer diagnosis seems to be strongly significant. It could result from more exhausting every-day routine connected with children's complains during the treatment. On the other hand it could be the effect of priorities re-evaluation in every parents' life.
ADD:

Support vector machine with radial basis function kernel applied to search for facial tumors geographical environmental predilection.

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INTRODUCTION: Identification of risk factors and groups of higher risk of pathology development are one of the most important tools in describing epidemiology of specific disorders that have fuzzy pathophysiology. Geographic origin of patient may be very important aspect of clinical interview, because it allows determining environmental factors that increase risk of carcinogenesis.
PURPOSE: This was retrospective observational study on occurrence and localization of facial tumors in the Department of Maxillofacial Surgery (Medical University of Lodz, Poland) during period from 2011 to 2012, taking into consideration residence address zip code and sex, and aiming in generation of predilection (domination) maps and models for Lodz area based on machine learning algorithm.
METHODS: Maps and models were generated based on metadata of 153 patients hospitalized because of facial tumor (skin, oral cavity, facial skeleton, salivary glands and lymphoma). In the process of analysis we used: official postal codes data delivered by Central Statistical Office of Republic of Poland (accessed 17.03.2009), API of Google Maps and proprietary software written using C# programming language based on .NET Framework CRL (Microsoft Visual Studio 2013 Professional). The last mentioned software aimed to train artificial intelligence using support vector machine with RBF kernel (library OpenCLTemplate.MachineLearning) in order to generate maps and model with areas of classification (library OpenGL).
RESULTS: We present maps showing three-dimensional classifications and model of four-dimensional classification (considering localization of lesion, geographical coordinates of residence address and sex).

CONCLUSIONS: Interpretation of presented classifications, maps and models in association with data coming from external sources that analyze professional and social exposure to environmental factors may aid in identification of high-risk groups of facial tumors development in Lodz area, and hence - the implementation of effective forms of prevention.
ADD:

Activity of HEX A in the diagnosis of salivary gland dysfunction in morbid obesity

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INTRODUCTION: N-acetyl-Ă□-D-hexosaminidase (HEX, EC 3.2.1.52) belongs to a group of enzymes hydrolyzing glycoconjugates. This most active lysosomal exoglycosidase is responsible for disconnecting N-acetylglucosamine and N-acetylgalactosamine residues from the non-reducing ends of oligosaccharide chains of glycolipids and glycoproteins of the cell membranes, and also extracellular matrix proteoglycans. N-acetyl-Ă□-D-glucosaminidase and its isoenzymes A and B (HEX A, HEX B) can be cosnidered as enzymatic markers of salivary gland injury.
PURPOSE: The aim of study was evaluation of HEX A activity measurement in the diagnosis of salivary gland dysfunction in patients with morbid obesity.

METHODS: The study was performed in 16 patients (mean age 36 Âą 3 years) with morbid obesity and healthy periodontium (GI = 1 Âą 0.2, PPD-2.0 Âą 0.5) who were treated surgically in the Second Department of General Surgery and Endocrinology, Medical University of Bialystok, Poland.

The study was approved by the Bioethical Committee of the Medical University of Bialystok, Poland. The complete saliva, unstimulated and stimulated, collected from the patient by spitting method was research material. The stimulation of saliva secretion was held by dripping on the tip of the tongue every 30 seconds, 10 ÂlL of 2% citric acid. A salivary flow rate was calculated from the salivary volume divided by the time needed for salivary sample collection. Activity of HEX A was determined in duplicate by the MarciÂŹniak et al. method. Statistical analysis was performed using Statistica 10.0. ANOVA Kruskal-Wallis, median and LSD tests were used to study the significant differences between groups.
RESULTS: Observed abnormal organization of the oligosaccharide chains of glycoconjugates measured as changes in the activity of HEX A in unstimulated and stimulated saliva in patients with morbid obestity. Bariatric surgery leads to a decrease of activity of HEX A ($p<0,04$), suggesting improvement in the salivary gland function in obese people.
CONCLUSIONS: Bariatric surgery leads to a significant decrease in the activity of HEX A and increase in unstimulated salivary flow, which may indicate an improvement of salivary gland function in obese patients who had undergone sleeve gastrectomy.
ADD: This paper is approved by Local Ethical Committee.

Mobile phone base stations, air pollution and childhood cancer incidence - is there a correlation or it is just another Urban legend?

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INTRODUCTION: Nowadays people tend to increasingly interfere with the environment - the emission of toxins and the use

of wireless technology expand rapidly. There are concerns regarding health impact of these changes. In particular, the intensity of air pollution and radio waves were suggested increase incidence of childhood cancer.

PURPOSE: To test the impact of the concentration of Sulphur Dioxide, Nitrogen Dioxide, Carbon Dioxide and dust as well as the distance from the nearest mobile phone base station to child's place of living on the incidence of childhood cancer.
METHODS: The study group included 504 children- 294 boys (58,3%) and 210 girls (41,7%). All of them were inhabitants of the ŁĎĂłdŁş Voivodeship, had confirmed diagnosis of cancer and were treated in the Department of Paediatrics, Oncology, Hematology and Diabetology of Medical University of ŁĎĂłdŁş between January 2000 and January 2014. The control group included 529 children - 315 boys (59,5%) and 214 girls (40,5%) -treated the same clinic for nonneoplastic diseases. The median age was 6,74 (2,99 - 13,4) vs 4,59 (1,71 - 10,53) years. The data on the concentration of toxins were obtained from the reports of the Regional Environmental Inspectorate in ŁĎĂłdŁş for years 2006-2012. The distance from the nearest mobile phone base station was measured with the use of a map based on the list of building permissions issued by the Department of Electronic Communication of Poland. Demographic data was obtained from the Main Department of Statistics of Poland.
RESULTS: In the study group 30,6% (154/506) of patients were diagnosed with leukemia, 20,63% (104/504) with CNS tumour, 20,4 % (103/504) with lymphoma, 25,6% (129/504) with solid tumour and 2,8% (14/504) with other malignancy.
Median concentrations of SO2, NO2, CO and dust in the study group vs control group were 465,8 vs 519,4 Mg/a, 245,9 vs 281,5 Mg/a, 384,0 vs 439,0 Mg/a, 265,7 vs 287,78,8 Mg/a. The differences were not statistically significant - p=0,36, p=0,59, p=0,62, p=0,66 (Mann Whitney). Medians of distance from the nearest mobile phone base station were 0,5 vs 0,45 km (p=0.15, Mann Whitney).

CONCLUSIONS: There is no compelling evidence for the role of environmental factors in the incidence of childhood cancer.. Childhood cancerogenesis is more stochastic, independent of environment or caused by genetic factors as compared to adults.
ADD:

Psychological and physical effects of cancer disease - a study of cancer adolescent patients and their families.

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INTRODUCTION: In view of significant progress in the treatment, the number of people who had a cancer in childhood is still increasing. In Poland it is about 10.000 people. The disease is a big burden for the patient and his family. Their life changes a lot that may affect the normal physical and mental development of the child.
PURPOSE: To evaluate the psychological and physical effects of cancer disease on cured children and their families.
METHODS: The study group consisted of 150 patients (mean age - 7.2 years) and their families. Patients completed treatment in the Bone Marrow Transplantation, Oncology and Hematology Department Wroclaw Medical University average 4,7 years ago. Children diagnosed with blood cancer were 51%, solid tumors - 49% and 19% after transplantation. Data were collected using self-prepared and carried out survey.
RESULTS: During the treatment relationships deteriorated in 8% families and improved in 19%. Separation occurred in 3%, divorce in 5%. Full families accounted for 99.3%. Divorce rate was 16.7 with an polish average of 0.17 ($p<0.01$). In 16% there was an improvement in relationships with siblings between period before and after treatment, in 18% - deterioration. In colleague relationships, respectively - 21% and - 10%, respectively. 96% of patients continued learning in the class appropriate to age, and 4% a year lower. Among the adult patients, 19% are nowadays learning, 32% studying, 41% working, 8% not working. 21.5% have a vocational education, 21.5% average and 57% higher. 7% of patients are on a pension. There are physical limitatnions in 22%, intellectual - 3%, emotional - 14% after treatment. In 35% of families one parent quitted job. Worsening of the financial status was declared in 51.3% cases. In 17% there were psychological problems, and in 2% of the families, one member got addicted. During the treatment patients and his family visited psychologist (30% and 13%),

psychiatric (6% and 5%) and support groups (2% and 5%). After treatment the help of a psychologist was used by 12% children and 6% parents. Availability of the psychologist was assessed on a 1-5 scale for an average of 3.8.
CONCLUSIONS: History of cancer has no significant effect on later psychosocial child functioning. The physical limitations were reported most often. Both the disease and the long treatment does not affect the child's education. The main problem is the deterioration of the material status. The disease can have a negative impact on family relationships and mental state of its members. For this reason, they need ongoing support of a psychologist and a social worker, which is insufficient. According to the surveys, the problems faced by the patients and their families were highlighted and that is why we decided to write a guide for them.
ADD: This paper is approved by Local Ethical Committee.

Influence of a high protein whey diet on the level of catalase (CAT) in the skin

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INTRODUCTION: Catalase (CAT, EC 1.11.1.6) is an enzyme responsible for the degradation of hydrogen peroxide to water and oxygen. This hemoprotein occurs in nearly all living organisms that are exposed to oxygen and plays an important role in protecting the cell from oxidative stress damage by reactive oxygen species (ROS).
Hydrogen peroxide, which belongs to the ROS, is a toxic product of normal physiological processes and pathogenic ROS generation involving oxidase and superoxide dismutase reactions. H2O2 can induce cytostatic effects on cells and tissues, and participate in mutagenesis and carcinogenesis.

PURPOSE: The aim of the study was to evaluate the effect of a high protein whey diet on the level of catalase (CAT) in the skin.
METHODS: The material was obtained with the consent of IKE, it was the shaved dorsal skin of 24 Wistar rats divided into 3 groups of 8 animals each: group I - control group, group II - high protein whey diet 0,3 mg/kg for 7 days, group III - high protein whey diet 0,5 mg/kg for 7 days. After uptake, material was placed in the deep-freezing in liquid nitrogen and after 24 hours placed at -80oC until assayed.
The level of catalase was determined using ELISA immunoassay kits (USCN Live). Determinations were performed in duplicate. Results were reported as median, minimum and maximum. Statistical analysis was performed using Statistica 10.0 (Statsoft).

RESULTS: There was a statistically significant increase in the content of catalase (CAT) in the skin by the use of a whey diet at a dose of 0,3 mg/kg for 7 days (p= 0,3), and also by the use of a diet at a dose of 0,5 mg/kg (p=0,0009).
CONCLUSIONS: High protein whey diet stimulates the activity of antioxidant defense mechanisms in the skin. Preferred properties of whey proteins, through beneficial effects on the oxidative-reductive balance of the skin, can be used to produce cosmeceuticals or nutricosmetics improving condition and preventing premature aging of the skin.
ADD: This paper is approved by Local Ethical Committee.

Can we avoid anaemia in children? - risk factors of iron deficiency in children under two years of age.

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INTRODUCTION: Anaemia is a hematological disorder often diagnosed in childhood which presents with decrease of the total amount of hemoglobin and in most cases red blood cells count in the blood as well. Parents usually report to the pediatrician concerned about abnormalities in physical appearance or behavior of their child. It is also diagnosed on the occasion of periodical testing.
PURPOSE: The aim of our study was an analysis of the anaemia causes in younger children, either subjective or physical symptoms and results of laboratory tests.
METHODS: Research group consisted of 141 children (including 89 boys, 52 girls) diagnosed with anaemia, in age from 20 day to 24 months, treated in the Departament of Bone Marrow Transplantation, Hematology and Oncology in WrocĹ□aw between January 1st, 2005 and December 31st, 2013. Presented symptoms and laboratory tests such as morphology, concentration of iron were analyzed retrospectively on the base of medical history of the patients.
RESULTS: In the study group 50 (35%) of children were premature, 14 (10%) of children from multiple pregnancy, 43 (30%) - pathological childbirth, 15 (11%) of the children from the serological conflict, 4 (5%) were perinatal bleeding. A history of infection was found in: 13 (9%) intrauterine, 16 (11%) at the neonatal period. 19 (13%) developed jaundice in a neonatal period, in 5 (26, 3%) of them an exchange transfusion were applied. In 13 (9%) mothers of the children anaemia was developed during pregnancy. Ten (7%) patients received a poor diet. The most prevalent symptoms were - pallor in 35 patients (25%), a murmur of the heart in 20 (14%), stomach disorder in 15 (11%), appetite loss in 6 (4%) and agitation in 5 (4%), respectively. 70 (100%) children fromt the iron deficiency risk group received iron supplements in the prophylaxis. Due to the severity of anemia, 14 (10%) underwent the procedure RBC transfusion after shortly admission.
CONCLUSIONS: Prematurity and any perinatal complications significantly increased the risk of anemia. Children belonging to the iron deficiency risk group received an iron prophylaxis, but in some cases it couldn't prevent anaemia anyway. Anaemia in young children can also be caused by improper diet. The most common symptom during the physical examination was pallor and a heart murmur.
ADD:

Enlarged lymph nodes= red flag? - epidemiology and diagnosis of lymphadenopathy in children.

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INTRODUCTION: Enlarged lymph nodes are a common clinical problem among children in all age groups. Lymphadenopathy is usually caused by infections, but also neoplastic processes can manifest in this way. Therefore, it is important for pediatricians to be careful and able to put fast and proper diagnosis.
PURPOSE: The aim of the study was to evaluate the prevalence and cause of lymphadenopathy in children.
METHODS: The study group consisted of 299 children admitted due to lympadenopathy to the Department of Hematology, Oncology and Bone Marrow Transplantation in Wroclaw between 2005 and 2014. The children ranged in age from 1 week to 18 years, average 8,33 years. Boys accounted for 65% (194). Data we collected on the basis of a retrospective analysis of the medical records. The analysis included data from the interview (age, duration of lymphadenopathy and associated symptoms), characteristics of lymph nodes (size, location, texture, consistence, pain, local warmth), coexisting hepatomegaly or splenomegaly, laboratory tests (blood count , erythrocyte sedimentation rate (ESR), C-reactive protein (CRP) , lactate dehydrogenase (LDH) , urea and creatinine level), the results of imaging studies and lymph node biopsy (if were done).
RESULTS: In 234 cases (78%) lymph nodes enlargement was caused by a bengin disease and in 65 patients (22%) cancer was confirmed. Among the non-malignant reasons the most common was reactive lymphadenopathy of unknown origin (most possible viral infection) detected in 187 children (79,9 %). In 35 children (12 %) mononucleosis or mononucleosis-like syndrome was diagnosed. Among the malignant reasons dominated acute leukemia- 34 (11%), Hodgkin's disease - 24 (8%), non-Hodgkin lymphoma- 9 (3 %) and neuroblastoma - 2 (0,7%).We also analyzed the relationship between characteristics of lymph nodes, associated symptoms, results of laboratory analysis, imaging studies and nature of lymphadenopathy .

CONCLUSIONS: Lymphadenopathy should always arouse the vigilance of pediatrician. In the diagnosis of lymphadenopathy the detailed history taking, thorough physical examination and proper interpretation of peripheral blood count with microscopic blood smear are of great importance. In case of any doubt especially in cases of rapid or asymmetrical enlargement of the lymph nodes, large size and the presence of lymph node packages or long-lasting lymphadenopathy, is strongly recommended to contact with reference center and refer the child for further diagnosis.
ADD:

The tendency to addiction depending on education.

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INTRODUCTION: Introduction: Addiction is a strong need to perform an activity or use of a substance. Classic hallmarks of addiction include impaired control over substances or behavior, preoccupation with substance or behavior, continued use despite adverse consequences.
PURPOSE: Aim: The aim of research was the analysis of development of addictions among polish society depending on education.
METHODS: Materials and methods: A group of 6300 respondents was surveyed during the period 1 September 2013 to 31 February 2014. The data collection was used as questionnaire to copyrights. Results were statistically analyzed
RESULTS: Results: Middle school students and high school students admitted to drinking alcohol respectively 72.22 % and 82.54 % , followed by 95.57% of students , and people with higher education 95.9 %. Marijuana was most frequently used by high school students (49.21 %), followed by people with higher education (44.40 %) and students (42.03 %). Middle school students (8.33 %) and secondary school students (5.56 %) significantly more likely used a regular marijuana than students (2.21 %) and respondents with higher education (2.19 %) (p = 0.00001) . Narcotics were regularly used by 5.56% of middle school students , 1.59 % of high school students , 1.23 % of people with higher education , 1.08 % of secondary education , 0.67 % of the students . People with higher education used strong pharmacological agents (analgesics, sedatives , hypnotics , p = 0.03).
CONCLUSIONS: Conclusions: Abuse of psychoactive substation and use of pornography are not only common among adults but also among young people. Results of these studies have reported a serious problem.
ADD:

Many faces of PHACE syndrome

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INTRODUCTION: ZespÄłĹ PHACE jest bardzo rzadkim zbiorem wad wrodzonych wystÄpujÄcych u dzieci, prawie wyĹÄcznie u dziewczynek. Dotychczas w piĹmiennictwie fachowym opisano okoĹo 150 przypadkÄłw. Dziedziczenie jest dominujÄce, sprzÄĹźone z chromosomem X.
SkĹadajÄ siÄ na niego nastÄpujÄce patologie: P- posterior fossa brain malformations, H- hemangioma of the face, A- arterial anomalies, C- cardiac anomalie, E- eye diseases. U czÄĹci pacjentÄłw wspÄłistniejÄ zaburzenia rozszczepowe ĹrodkowejosiciaĹa okreĹlane literÄ S- Sternal clefting, supraumbilical raphe.

PURPOSE: KorzystajÄc z prawdopodobnie najwiÄkszego w Polsce zbioru pacjentÄłw z jednoznacznie stwierdzonym zespoĹem PHACE autor okreĹla najczÄstszÄ korelacje objawÄłw gĹÄłwnych, wad towarzyszÄcych tej chorobie oraz

porĂłwnuje je z przyjÄ□tymi kryteriami rozpoznania.
METHODS: Analiza historii chorĂłb, badaĹ□ diagnostycznych, danych z wywiadu, dokumentacji fotograficznej oraz indywidualnego badania 8 pacjentĂłw z potwierdzonym rozpoznaniem zespoĹ□u PHACE.
RESULTS: Do postawienia rozpoznania wymagane jest stwierdzenie naczyniaka segmentarnego twarzy plus jednego duĹźego kryterium lub dwĂłch maĹ□ych. U wszystkich pacjentĂłw stwierdzono naczyniaka. Ponadto z kryteriĂłw duĹźych: u trzech stwierdzono anomalie w budowie mĂłzgowia, u czterech wady narzÄ□du wzroku, u trzech wady naczyĹ□ krwionoĹ□nych (mĂłzgowych lub poza mĂłzgowych) oraz u jednego wadÄ□ strukturalnÄ□ serca.
CONCLUSIONS: Omawiany zespĂłĹ□ jest wyjÄ□tkowo trudny do zdiagnozowania, ze wzglÄ□du na duĹźÄ□ rzadkoĹ□Ä□ wystÄ□powania i zajÄ□cie wielu ukĹ□adĂłw, takich jak: ukĹ□ad nerwowy, sercowo- naczyniowy, narzad wzroku, powĹ□oki skĂłrne oraz czÄ□sto wiele innych. NaleĹźy go podejrzewaÄ□ u kaĹźdego pacjenta z segmentarnym naczyniakiem w charakterystycznym regionie twarzy, z objawami neurologicznymi lub wadami narzÄ□du wzroku, serca i wielkich naczyĹ□. PodejĹ□cie interdyscyplinarne jest niezbÄ□dne do prawidĹ□owego rozpoznania, ktĂłre powinno byÄ□ stawiane w oĹ□rodkach o najwyĹższej referencyjnoĹ□ci.
ADD:

â□□In search of lost timeâ□□ - impact of various factors on rapidity of cancer diagnosis.

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INTRODUCTION: Cancers in children's population are rare, but they account for the second cause of death except injuries and accidents. Nowadays we can completely cure about 70% of young patients, but results of the therapy depend on the stage of the disease. Thus it is important to diagnose the disease and implement the therapy as soon as possible.
PURPOSE: The aim of our study was to analyze the impact of various factors on the time from first symptoms to diagnosis.
METHODS: The study group consisted of 150 families of children cured of cancer - mean age 7.2 years, treated in the Bone Marrow Transplantation, Oncology and Hematology Department of Wroclaw Medical University from 1996 to 2012. Boys accounted for 77 (51%). Data were collected by means of individually prepared and performed questionnaires. Respondents were divided according to age while first symptoms, parent's education, number of children in the family, place of residence, searching for information in non-medical sources before the first visit to the doctor and the type of specialist visited initially. Statistical comparison was developed by one-way anova test.
RESULTS: In the group over 12 years old time of the diagnosis was the longest (average 99 days after the first symptoms), the shortest (average 73 days) in patients of 2-12 years. The longest diagnosis was found in the group in which at least one parent had, at most, secondary education (143 days) and shortest when both parents had higher education, or both primary (47 and 48 days). In long families time of the diagnosis was prolonged - over 3 children - 67 days, while 1 child - only 23 days. Diagnosis was set faster in children living in urban areas (average 73 days) than in the villages - 82 days. Search for information in more than one source (internet, friends, family) before visiting doctor was associated with protracted diagnosis (median 94 days), immediate contact with the doctor resulted in the shortest time of diagnosis (median 30 days). Direct contact with the pediatrician was associated with the shortest diagnosis (median 24 days). It was the longest when originally reported to the family doctor (79 days).
CONCLUSIONS: In the group of 2-12 years the diagnosis was the fastest (p=0,008). When both parents had a university or basic education the disease was recognized more quickly (p=0,004). Children from large families were diagnosed longer (p=0,041). Cancer was diagnosed faster in children from the cities (p=0,010). Searching for information on the cause of the child's distressing symptoms in non-medical sources prolongs diagnosis time (p=0,046. If child experiences some disease symptoms parents should visit a pediatrician first (p=0,011).
ADD: This paper is approved by Local Ethical Committee.

Birth weight and risk of cancer in childhood

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INTRODUCTION: There are few of findings about etiology of cancer in childhood. It is suspected that influence on cancers in childhood might occur by perinatal period factors. It is suggested, that high birth weight and accelerated intrauterine growth may cause increase of the risk of cancer in childhood.
PURPOSE: The purpose of this research is to evaluate birth weight and other perinatal period factors in children with cancer diagnosis. It makes an attempt to evaluate the risk of cancer in patients with cancer in their family.
METHODS: Information was based on the medical history of patients treated from 1991 to 2013 in Clinics of Pediatrics,Oncology and Hematology in University Hospital Number 4 in ĹĎĂłdĹş. Birth weight, length of body, pregnancy age, grade of Apgar scale, number of pregnancies, the sequence of birth were examined at 225 patients.
RESULTS: From 225 patients 64 suffered from acute lymphoblastic leukaemias (ALL), 5 - acute myeloid leukemia (AML), 33 - lymphomas, 17 - sarcomas, 59 central nervous system (CNS) tumours, 13 - syndromes associated with tumors, 35 - other solid tumours, 8 - non defined tumors (the part of patients had more than one disease). 11 patients had a birth weight less than 2500 g (which is 4,9%). 202 patients(89,8%) had the average birth weight - between 2500g-4000g. 12 patients (5,3%) had a very large birth weight (> 4000g).

CONCLUSIONS: The great part of patients (89%) had appropriate birth weight (2500-4000g), that result did not reveal a direct relation between too large and too small birth weight against the risk of cancer in childhood.
While our analysis did not find a convincingly association between birth weight and childhood tumors, our findings suggest other prenatal factors modify risk for childhood cancers.

ADD:

Factors affecting complications after biliary stenting and time to maintain the patency of plastic prostheses.

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INTRODUCTION: Introduction: Endoscopic biliary drainage is an effective way to decompress the mechanical jaundice . To maximize the advantages and minimize the complications of biliary stenting, it is important to recognize factors influencing complications.
PURPOSE: Aim: The aim of study was analysis of factors affecting complications of endoscopic procedures and time to maintain the patency of biliary prostheses.
METHODS: Materials and methods: A total of 83 patients (46 F, 37 M) hospitalized in the Department of Gastroenterology & Hepatology of SP CSK at K. GibiĹski SUM in Katowice between 2009 and 2012 were retrospectively included into the study. Patients were diagnosed with cholangiocarcinoma (37,35%), cholelithiasis (27,7%), pancreatic cancers (21,69%), other strictures (10,84%) and other cancerous disease (2,4%). 251 procedures ERCP (endoscopic retrograde cholangiopancreatography) were analyzed.
RESULTS: Results: The symptoms of dysfunction of the prosthesis occurred in 41.43% of patients. The most frequent complications were: cholangitis (43.82%), prosthesis disclocation (41.43%), stent migration (10.36%), biliary obstruction without cholangitis (6.37%). Stent migration was significantly more often in patients who underwent sfincterotomy than those without sfincterotomy (65, 38% vs 42.96%, p = 0.035). Dilatations of the biliary strictures were performed significantly more often in patients who developed symptoms of late cholangitis than in patients with early cholangitis (65.38% vs

34.62%, p = 0.025).
CONCLUSIONS: Conclusions: Endoscopic sphincterotomy may provide plastic stent migration so it should be avoided before stenting. Dilatation of the biliary strictures before stenting are involved in development of late cholangitis.
ADD:

Parallel physical examination and EHR generation using novel SISDS methodology. Is it a promising perspective? Initial evaluation of proprietary software.

1st auth. e-mail: konrad.stawiski@stud.umed.lodz.pl

INTRODUCTION: Electronic health record software (EHR) is promising and inevitable solution that supports reinforcing the quality of healthcare worldwide and therefore, it becomes rapidly a requirement of any global healthcare. Recently, Hill et al. determined the mean percentage of time spent by physicians on data entry as 43%, and thus concluded that they spend significantly more time entering data into electronic medical records than on any other activity. Current EHRs usually do not offer any qualitative assistance in generation of reports, making this process time-consuming and prone to mistakes. In this concept, also retrospective analysis of data is limited.
PURPOSE: The aim of this study was to develop an interactive application for use in devices with Microsoft Windows OS, containing a digital interface for complex neurologic assessment of patient and a set of additional tools (including EHR).
METHODS: The methods contained application development and deployment using Microsoft Visual Studio 2013 software, C# language based in .NET framework, components of Microsoft Internet Explorer, wkghtmltopdf project source files, and network services. An installer was developed using Internet-based ClickOnce technology. The authors reviewed the literature and interviewed clinicians to tackle the problems inherent in the neurological physical examination. Initial evaluation of software was conducted on 14 patients at Department of Neurosurgery and Neurooncology, Medical University of Lodz. The patients were fully neurologically examined without prior knowledge of medical history.
RESULTS: The application was created to maximize activities in relation to patient's current body position. Usage of novel report generation approach - SISDS methodology - allows parameterization of electronic health records and therefore application in retrospective and prospective studies. Clinician can also make voice notes, collect results of additional tests, and because of autocomplete module - save time on typing. Application contains predefined basic diagnostic inference algorithms - generating automated description and interpretation of symptoms. Mean time of one full physical examination with parallel report generation was 27,6 minutes and this time trend to decrease in consecutive patients. The summaries contained good description of symptoms.
CONCLUSIONS: Parallel physical examination and EHR generation using novel SISDS methodology is promising perspective that requires further evaluation and comparison with existing solutions. Current outlook also suggests that parameterization of patients' metadata allows data-mining tools to be applied; while systematically constructed medical documentation may impact in reducing the amount of malpractice incidents and could be a helper of young inexperienced doctor.
ADD:

"The Devil's Laboratory"

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INTRODUCTION: "A doctor's God-given mission is to block and treat disease, but the work on which we are now to embark is the complete opposite of those principles." - Dr Shiro Ishii.

The 3rd Geneve Convention was established in 1929. Although, the Minister of Foreign Affairs of Japan officially ensured, that Japan would keep that convention, it not improved the fate of captives in armed conflicts, where gifted physicians served wrong understood sence of science instead of humanity. This is where, on the altar of science, sacrifices of innocent beings were being made; filling medical cards with valued reports, diaries, which were able to buy the sins of the biggest criminals of the civilized world.
PURPOSE: The aim of the study was to analyse the character of experiments conducted on people, which were done about 70 years ago in the civilized world by ambitious but without ethical principles doctors. Events of this caliber can happen at any moment especially repeated by other ambitious medics.

METHODS: descriptive analytical synthetic comparative
RESULTS: In the face of war, physicians were often engaged into pseudo - scientific activities, where human rights not took affect and the price of experiments was high enough to guarantee the impunity and luxury life for Japanese Mengele-like doctors even after the end of the war.
CONCLUSIONS: If the price of progress would be a savage against the human life checking the end of its biological strength, this type of progress is the negation of humanity.

ADD:

How young people perceive the psychiatrist?

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INTRODUCTION: Introduction: Psychiatric disorders become more common mental or behavioral pattern or anomaly that causes either suffering or an impaired ability to function in ordinary life and which is not developmentally or socially normative. Understanding public opinion on the perception and knowledge of the psychiatric treatment allows social movements to education related mental promotion and necessity of early treatment and diagnosis of mental disorders.
PURPOSE: Aim: The aim of research was analysis of view of students about psychiatric treatment and examing their knowledge of the mental disorders.
METHODS: Materials and methods: The study was conducted with the authors questionnaire among 7839 students. Statistical analyses were performed using the statistical software package Statistica 10 by means of the chi-square test.
RESULTS: Results: More than half students claimed that mental illness could be cured (76,75%). According to 52,02% of the surveyed psychiatrists treated addiction . 23,83% of young people would avoid help of psychiatry. Every second student hid the fact that the use of psychiatric treatment. In the opinion of 29,69% of students waiting outside the office of a psychiatrist was shameful. Only 2,08% of respondents did not consent to psychiatric treatment if this would be necessary.
CONCLUSIONS: Conclusions: The majority of Polish students positively assess the usefulness of psychiatric help. Knowledge of psychiatric treatment is becoming greater.
ADD:

Diagnostic difficulties of neuroblastoma and nephroblastoma.

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INTRODUCTION: Neuroblastoma (NBL) and nephroblastoma (Wilms' tumor-WT) are the most common solid tumors located outside the central nervous system occurring in the youngest children. Both tumors may present with similar symptoms which create diagnostic difficulties.
PURPOSE: The aim of our study was to analyze either subjective or physical symptoms of NBL or WT and their onset prior to diagnosis, also laboratory tests results at diagnosis.
METHODS: Study group consisted of 102 patients (57 diagnosed with WT, 45 NBL located in abdominal cavity) aged from 10 days to 14 years 3 months old treated in The Bone Marrow Transplantology, Oncology, and Haematology Department of Wroclaw Medical University between January 1st, 2005 and December 31st, 2013. Data were analyzed retrospectively on the base of the patients medical records. Statistical comparison was developed by using the chi-square and one-way anova test.
RESULTS: The most frequent clinical symptoms preceding WT or NBL diagnosis were respectively: abdominal mass detected by physical examination in 11 (19%) vs 10 (22%) - no significance (NS), abdominal enlargement in 25 (44%) vs 10 (22%) - p<0,010, abdominal pain in 23 (40%) vs 12 (27%) - NS, fever in 9 (16%) vs 8 (18%) - NS, haematuria in 9 (16%) vs 0 (0%) - p<0,010, pallor in 8 (14%) vs 6 (13%) - NS, weakness in 7 (12%) vs 6 (13%) - NS, weight/appetite loss in 5 (9%) vs 11 (24%) - p<0,010, neurologic symptoms in 0 (0%) vs 11(24%) - p<0,010, emesis in 8 (14%) vs 5 (11%) - NS patients. Time from the first symptoms onset to diagnosis ranged: for WT from 0 to 183 days (median 8), NBL from 0 to 168 (median 21). Metastatic disease was confirmed in 8 (14%) patients with WT and 20 (44%) patients with NBL.
CONCLUSIONS: General symptoms are more likely caused by NBL. In the studied group haematuria occurred only among patients with WT. The time from first symptoms onset to diagnosis was significantly longer in children with NBL. Metastases were more frequently present at a diagnosis NBL (p<0,010). Taking an interview in detail, performing fully physical examination and evaluation of blood and urine tests can shorten time to diagnosis.
ADD:

Coexistence of histopathological findings associated with antrial metaplasia of gallbladder.

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INTRODUCTION: Cholecystectomy, as the most common abdominal surgery, is usually performed due to gall-stones that seem to cause also premalignant changes. Presence of antral metaplasia in gallbladder is still controversial as many researchers consider it a preneoplastic lesion preceding the emergence of dysplasia, while other authors believe the foci of antral metaplasia are a common finding associated with chronic cholecystitis. One of proposed histogenic models of gallbladder carcinoma assumes that neoplasms derive from normal epithelium, the other requires metaplastic epithelium.
PURPOSE: The aim of the study was to determine coexistence of histopathological findings associated with antrial metaplasia of gallbladder.
METHODS: This was a retrospective observational study of histopathological reports from the period between January of 2011 and February of 2014. Authors selected records that met eligibility criteria (presence of antral metaplasia in gallbladder) and analyzed the age, sex and concomitant histopathological findings.
RESULTS: During study period only 40 records presented the presence of antral metaplasia in gallbladder and this was always associated with chronic cholecystitis, which was ulcerative in 3 cases. Mean age of affected patients was 57,8Âą12,5 with female: male ratio equal to 5,6. Average gallbladder with metaplasia was 8,21Âą1,72 cm long (95%CI: 7,61-8,81), 0,49Âą0,46 cm thick (95%CI: 0,24-0,75) and had diameter of 2,54Âą0,66 cm (95%CI: 1,99-3,09). Concomitant cholesterolosis was noted in 12,5% (n=5) of cases. Hyperplasia of epithelium, adenomyomatosis and intestinal metaplasia were discovered in 2 cases respectively and mutually exclusive. The only exception was one association of adenomyomatosis with intestinal metaplasia,

and this was also connected with diffuse metaplasia and dysplasia. T-test showed no statistically significant difference of mean age in both sexes (p=0,17), while the thickness of wall strong positively correlated with the length of gallbladder (coefficient 0,677; p=0,006).
CONCLUSIONS: Despite the fact that cholelithiasis can produce atrial metaplasia, which could be precursor lesion of gallbladder carcinoma, this histological change in our material was always associated with chronic cholecystits. Antral metaplasia sometimes coexisted with cholesterolosis, hyperplasia of epithelium, adenomyomatosis and intestinal metaplasia, although these changes were usually mutually exclusive. Only one of forty cases of antral metaplasia has shown mild dysplasia, suggesting its relatively stable state and important role of symptoms during chronic cholecystitis.
ADD:

Why do people want to change their appearance?

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INTRODUCTION: Introduction: Appearance has an extremely important role in the human psyche. Dissatisfaction with appearance can affect the lack of confidence, withdrawal from society. Many people choose to improve your body.
PURPOSE: Aim: The aim of research was analysis of the acceptance of their appearance by society and the reasons for which people want to change it
METHODS: Material and methods: A group of 3757 respondents were participated with the examination during the period 1 September 2013 to 24 February. The authors questionnaire was used, which was voluntary and anonymous. Statistical analyses were performed using the statistical software package Statistica 10 by means of the chi-square test.
RESULTS: Results: A group of 56% of the people sees in themselves the elements of appearance that can be improved. More than half of respondents (54%) supports the execution of plastic surgery for the purpose of improving the beauty and eliminate cosmetic defects. However, only 8% definitely would take decision of operations if the possibility there was. According to the respondents the most desired treatments include: removal of skin lesions (30%), liposuction (27%), nose correction (20%). breast enlargement (14%), Groups of 11 respondents (0.2%) expressed the need for a sex change
CONCLUSIONS: Conclusions: In today's competitive society, people recognize the acceptance and importance of self-improvement, whether it is done for social, professional or healthy reasons.
ADD:

Do anxiety and impulsivity affect more prone to depression?

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INTRODUCTION: Introduction: Often serious problems concerning psychological well-being are mental disorders. They require a comprehensive and specialized psychiatric and psychological help, but there is no public methods of controlling your mental state.
PURPOSE: Aim: The aim of study was to evaluate whether anxiety and impulsivity affect the tendency to depression.
METHODS: Methods: The research consisted of group of 85 people, who were divided into group with mental disorders and control group. The study group had 34 patients treated in open ward of the Department of Psychiatry and Psychotherapy of Medical University of Silesia in Katowice throughout 11/2012-11/2013. The control group included 51 persons without mental disorders. Three questionnaires were used: Beck, Barratt and Liebowitz. Statistical analyses were performed using the statistical software package Statistica 10 by means of U Mann-Whitney test and t-student test.

RESULTS: Results: Analyzed groups had significant differences in terms of depression (p=0.000001). Average score in study group: 22.94+/-12.50; in control group: 7.15+/-6.44. Groups had significant differences in terms of anxiety (p = 0.000164). Average score in study group: 60.41+/- 30.30; in control group: 35.01+/-23.94. Groups had significant differences in terms of impulsiveness (p=0.000601). Average in study group: 66.35+/-9,49; in control group: 59.54+/- 7,87. Significant positive correlation was observed between the results of depression and anxiety (r= 0.64465).
CONCLUSIONS: Conclusions: The intensity of the anxiety is directly proportional to the severity of depression. There is a big utility of Social Anxiety Scale in psychiatric practice.
ADD:

Atypical pancreatic tumors: retrospective analysis of 530 patients operated on for pancreatic tumor in the Department of General and Transplant Surgery

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INTRODUCTION: Tumors in the pancreas include the entire spectrum of exocrine and endocrine neoplasms. Preoperative differentiation between solid pancreatic benign tumors and malignancies is very difficult, if not in many cases impossible. Retrospective analysis of histopathological examinations of postpanreatectomy specimens revealed that up to 20% of these procedures are performed because of benign or non-neoplastic tumors what continues to be challenging clinical problem.
PURPOSE: The aim of the present study was assessment of all tumors of pancreas admitted for surgery to the Department of General and Transplant Surgery of Medical University of Lodz from January 2007 to December 2013 (n=530). Our primary purpose was to review patients with atypical pancreatic tumors.
METHODS: Clinical patients data were obtained from medical histories, operative protocols and outcomes of final pathological examinations. Analyzed data were as follows: age, gender, localization of tumor, type of surgical procedure, final pathological examination.

RESULTS: Pancreatic tumors have been increasingly diagnosed recently. These tumors represent heterogeneous group of typical and atypical neoplasms and non-neoplastic lesions. Clinical and radiological features of pancreatic tumors may be non characteristic. Furthermore, patients with solitary tumor of the pancreas should not undergo routine pancreatic tumor biopsy. Thus, only surgical treatment is the option to handle the problem of incidentally found pancreatic tumour and to exclude a diagnosis of malignancy with subsequent dramatic natural history of cancer.

CONCLUSIONS: As a consequence of difficulties in preoperative differentiation between atypical or other benign tumors and malignancies, it raises a question about treatment of patients with incidentally diagnosed solitary pancreatic tumor of unknown character. In the view of the fact, that premalignant and malignant histology of pancreatic incidentalomas is far more frequent, still surgical excision should be treatment of choice.
ADD:

Evaluation of antenatal anxiety level and its contributing factors.

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INTRODUCTION: Pregnancy is commonly associated with pain and effort. Woman's role in society changes and her physiology, especially endocrinology, undergoes significant transition. Factors named above can influence the level of anxiety among pregnant women, especially shortly before the delivery.
PURPOSE: The aim of the study is to determine impact of variables including e.g. age, expected way of delivery and previous labors on the antenatal anxiety level. Identifying the risk factors should contribute to taking better care of women, who are endangered with increased anxiety level.
METHODS: 100 patients of Perinatology Department of Maurycy Madurowicz Memorial Hospital were examined. The examination consisted of a short survey of 7 questions and C.D. Spielberg questionnaire (STAI), which examines the level of anxiety as state and trait. Criterion of selection was full-term pregnancy, i.e. finished 37 weeks of gestation. Examination took place maximum 2 weeks before expected date of delivery. Examined group was heterogeneous in age, education, place of living and experience of previous pregnancies. 37 percent of patients were supposed to deliver by elective cesarean section.
RESULTS: Medium level of anxiety as a state (STAI1) equals 46.49 points, which places it at 8th sten. It is, accordingly to the interpretation key for sex and age, a high anxiety level. Medium level of anxiety as a state with 42.15 points is to be interpreted as average. STAI2 correlates with STAI1 ($r=0.56$, $p<0.05$). STAI1 tends to decrease with age. Education level, place of living and taking part in prenatal classes seems to be irrelevant. Women with indications for elective cesarean section feel slightly more anxious then those supposed to deliver naturally (medium STAI1 48.24 vs. 45.46). Although both results belong to 8th sten, lack of low results among women with planned cesarean section delivery is significant. Statistically relevant is that STAI1 results of women who underwent negative labor experience are without exception high, whereas those of women describing the experience as hard to define classify as average and high.
CONCLUSIONS: Women with high level of anxiety as a trait and with negative experience of previous labors tend to feel elevated antenatal anxiety and therefore ought to be treated with special care.
ADD: This paper is approved by Local Ethical Committee.

Does laser vision correction still raise concerns among patients with vision defects?

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INTRODUCTION: Introduction: Laser eye surgery is a type of refractive surgery for the correction of myopia, hypermetropia, and astigmatism
PURPOSE: Aim: The aim of study was to investigate the concerns and knowledge about laser vision correction
METHODS: Materials and Methods : 2454 were participated with the examination. The authors questionnaire was used, which was voluntary and anonymous. The study group consisted of 78 % of women (n = 1915) and 21.95 % of men (n = 539). Among the respondents , 49.6 % (n = 1218) had myopia , 4.88 % (n = 120) hypermetropia , 4.43 % (n = 109) astigmatism, 20.89 % (n = 513) myopia and astigmatism , 2,44 % (n = 60) hypermetropia and astigmatism , 17.6 % (n = 434) had no defects . The statistical analysis was performed using the chi-square test.
RESULTS: Results: Women were more afraid of laser vision correct than men ($p = 0.000001$) . The biggest fears were raised by postoperative complications (69.12 %) and decreased vision (42.89 %). 56,61 % respondents have heard of complications after surgery, for example 22,48 % respondents heard about damage to the eye, 23, 54 % about decreased vision, 26,68 % about the need for re-treatment. Women significantly more often did not know any contraindications to surgery ($p < 0,05$) . A group of 64.31 % people responded that financial conditions did not allow to make a decision about surgery. Price was recognized by the society for the most common disadvantage of laser vision correction. 49,04 % people wanted to undergo laser vision correction.
CONCLUSIONS: Conclusions: Despite the small risk the procedure raises concerns and the fear of vision loss among the respondents
ADD:

The state of knowledge of patients' parents of the Department of Pediatrics Propedeutics and Metabolic Bone Diseases about prevention and treatment of metabolic bone diseases.

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INTRODUCTION: Among the many factors affecting the doctor-patient relationship in pediatric practice, proper contact a physician with parents, the transmission of information understandable for them play a key role. Methods in communicating this information, a proper understanding of the information has a decisive influence on the course of the therapeutic process and the effectiveness of recommended therapy. In our research, we studied topic of bone metabolic diseases, i.a. disturbances of calcium - phosphate, and vitamin D deficiency problem . This problem affecting a larger group of patients, not only the adults. Mineral disorders are more commonly recognized in adolescents (as a primary or secondary to other diseases), and their adequate and systematic the treatment has an effect on the skeleton in adulthood.
PURPOSE: The aim of the study is to determine the status of parents' knowledge about the disease of the locomotor system suspected or known their child, and also attempt to assess the reliability and clarity of the information provided by doctors carrying a child on the diagnostic process and treatment. Evaluation of parents' knowledge about the methods of prevention and treatments of bone metabolic diseases.
METHODS: The study included parents of underage patients of Department of Pediatric Propedeutics and Metabolic Bone Diseases, Medical University of Lodz, Poland and Osteoporosis Clinic who was suspected or diagnosed with metabolic bone disease. In group of patients was carried out an anonymous questionnaire. The survey asked a way of gaining knowledge about the illness of the child, the quality of information obtained from a doctor, and knowledge of how to prevent bone diseases.
RESULTS: The quality of information provided by physicians is assessed
by most respondents as a "clear and reasonable'\' The state of the parents' knowledge
requires, however, to improve due to its impact on the therapeutic process. Among the expectations of parents most often mentioned were: affordable way to provide information and verification of parent knowledge.
CONCLUSIONS: 1) Methods of presenting the information should be adapted to the most basic parental knowledge of childhood diseases.
2) The status of parents' knowledge about the disease, should be verified by a doctor, because respondents did not understand exactly issues related to the diagnosed disease.
ADD:

Evaluation of the health of prematurely born children in the moment of the discharge from Neonatal Pathology and Prematurity Complications Clinic

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INTRODUCTION: Every neonate born prematurely, defined as born before 37 week of gestational age, should be referred to Neonatal Pathology and Prematurity Complications Clinic. According to current guidelines preterm infants with a birth weight less than 1501g may be under the care of a neonatologist for the first 36 months of life, whereas those with a birth weight more than 1500g only for about 12 months. As the many publications show, premature neonates are a group of children that require special care and attention from their paediatricians. With development of Maternal-Fetal Medicine

significant progress has been made in both quality and availability of neonatal care resulting in reduction of mortality rate among this group.
PURPOSE: Appraisal of general health and development of patients discharged from the Neonatal Pathology and Prematurity Complications Clinic. The aim of the study is also to answer the question if a birth weight is the only appropriate criterion to assess the time of care in the Clinic and if there are any other criteria that may help in this assessment.
METHODS: Retrospective analysis of medical documentation of 92 patients of Neonatal Pathology and Prematurity Complications Clinic attached to M. Konopnicka University Hospital nr 4 in Lodz born in 2010-2011, discharged between 6th and 38th month of life.
RESULTS: In the analyzed group of patients 34,8% of children had the birth weight less than or equal to 1500g, whereas 65,2% more than 1500g. In this group only 9 of the children had had no long term complications during the care in the Clinic and in the moment of the discharge, comparing to 42 (45,7%) that had had more than 4 complications. The significant, positive correlation was found between number of short term complications and number of long term complications(r=0,533; p=0,001). There is also statistically significant difference in long term complications between two groups: children with birth weight < 1501g and children with birth weight >1500g (U=250; p=0,001).
CONCLUSIONS: Most of the premature children discharged from the Clinic still needed specialized out-patients clinics` care. The number of short term complications criterion is as good as the birth weight criterion. Connecting these two criteria can help to assess a group of patients at higher risk of long term prematurity complications and take longer care of this group to monitor their psychomotor development better.
ADD:

â□□To survive first 30 daysâ□□ - epidemiology and infectious complications in the early period after HSCT

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INTRODUCTION: Allogeneic hematopoietic stem cell transplantation (HSCT) is a treatment method used for patients with malignancies, some congenital or acquired disorders of the hematopoietic system and metabolic diseases. Infections are the most common complications of this procedure.
PURPOSE: The aim of the study was to analyze the incidence of infections in the early period after HSCT (from day 0 to 30) and to identify types of pathogens.
METHODS: The study group was consisted of 614 patients (373 diagnosed with malignant diseases, 77 with myelodysplastic syndromes, 164 with non-malignant disorders) aged from 1 month to 17 years 11 months old, who underwent HSCT in The Bone Marrow Transplantology, Oncology and Hematology Department of Wroclaw Medical University between January 1994 and December 2013. The results were compared with the literature data (1).The analysis was based on data from patient records. Statistical comparison was developed by using the chi-square test.
RESULTS: Infections were documented in 284 (46%) cases: 67 (24%) patients had bacterial infection, 163 (57%) viral infection, and 54 (19%) fungal infection. The most frequent virus was cytomegalovirus (CMV) detected in 78 (48%) patients. The incidence rate of CMV proliferation associated with the presence of CMV IgG among recipient (R) /donor (D) pairs were as follows: R(+)/D(+) 21 (36%), R(+)/D(-) 24 (41%), R(-)/D(+) 5 (9%), R(-)/D(-) 8 (14%). Aspergillus spp. was the most common factor (21 patients 39%) responsible for fungal infections. During the early post-transplant period 32 (5%) patients died, including 22 patients died from infections complications (69% of all early deaths). 3 patients died of viral (1 of ADV, 2 of HBV), 13 of bacterial and 2 of fungal infection.
CONCLUSIONS: HSCT is a procedure associated with high risk of infectious complications. The most common types of pathogens detected in this group of patients were viruses (mainly CMV). During the early post-transplant period infectious complication was the most frequent cause of death. Although viral infections were more likely in this group of patients, bacterial infections were more often cause of death. That's why a close cooperation between infectious disease specialist, hematologist and microbiologist is of considerable importance.

1. Ashok Srinivasan, Chong Wang, Timeline, Epidemiology and Risk Factors for Bacterial, Fungal and Viral Infections in Children and Adolescents after Allogeneic Hematopoietic Stem Cell Transplantation. Biol Blood Marrow Transplant. 2013;19(1): 94-101.
ADD:

Subjective and objective sleep quality in patients snoring before and after ENT operations.

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INTRODUCTION: Introduction: Disorders of sleep in patients with snoring including the diagnosed obstructive sleep apnea syndrome (OSAS) is a common problem with which patients present themselves to an ENT specialist. Disorder caused by the flow of air through the upper airway as a result of a reduction in muscle tone muscle walls oropharynx , soft palate and uvula , tongue, and reduce light of fauces. The causes may be anatomic curvature of the nasal septum , hypertrophy of the soft palate and uvula , and hypertrophic tonsillitis. Moreover, obesity and overweight, alcohol abuse , poor sleep hygiene .
PURPOSE: The aim of study was analysis of subjective and objective sleep quality in patients snoring before and after ENT operations.
METHODS: Material and methods: The study was conducted using an anonymous questionnaire partnership consisting of 24 questions. The study involved 375 women and 79 82.41 % 17.36% men . In terms of age were people aged 20-30 years (308 people). 41 patients underwent surgery in an interview laryngological (tonsillectomy had 14 people 3.07% , Adenoidectomy had 26 people 5.71 % nasal septum operation was 7 of 1.53 %). Injury nose in an interview given to 70 people (15.38 %) , 76 people complained that they felt difficulty in breathing through the nose.
RESULTS: Results: snoring during sleep in women stated the very common - 3.20 % (n = 12), common -7.73 % (n = 29), rare -21,33 % (n = 80) ,never -67,73 % (254), and in the case of men very common - 10.13% (n = 8), common 25.64 % (n = 10), rare 31,65 % (n = 25) , 81 % (n = 25) , never 12.41 % (n = 36). After a night's sleep, feeling sleepy and tired very often 52 people (11.42 %) , often 193 (42.41 %), rare 182 people (40.00 %) , never 27 people (5.93 %).There was no statistical significance in terms of snoring and operations laryngological . There was statistical significance in terms of difficulty breathing through the nose and snoring (p = 00007) . There was significance in terms of sleepiness and fatigue after a night's sleep, and the implementation of ENT surgery (p = 0.03). Statistical significance was found between snoring and feeling tired after a night's sleep (p = 0.008).

CONCLUSIONS: Conclusions: There were correlations in terms of difficulty breathing through the nose and snoring; sleepiness and fatigue after a night's sleep, and the implementation of ENT surgery; snoring and feeling tired after a night's sleep.
ADD:

Current meaning of hormonal therapy in Polish women being in perimenopausal age.

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INTRODUCTION: For some years researches have been illuminating the topic of perimenopausal hormonal therapy and

changing the approach and awareness of women. The meaning of dose and route of administration is emphasised to rule out complications and improve the tolerance of therapy.
PURPOSE: The intention of this study was to evaluate frequency, route of administration and type of perimenopausal hormonal therapy in Polish women of 45-54 in the year 2014. Moreover, the results were compared with data from available publications.
METHODS: The anonymous questionnaire study was conducted in all of Polish voivodeships between January and March 2014. The study included 465 perimenopausal women, aged 45-54 years. The results were analysed in Microsoft Office Excel and Statistica 10.0 (p=0,05).
RESULTS: The average age of participants was 49. 53,7% of women represent a younger group (45-49 years old) and 46,3% represent an older group (50-54 years old). Specific menopausal symptoms were present in 75% of women (n=347), including 10,3% with strong symptoms (problems with normal functioning) and 51% with moderate symptoms. Only 9% (n=42) responders is undergoing hormonal therapy (HT), with more than a half using an oral route of administration and 1/3 in hormone patches. Low dose therapy is administered in 7% of women. Only 7% of women was treated with HT in the past. Majority of women declaring knowledge of HT has fears connected with this treatment. 53, 49% of participants is affraid of weight gain, 32,05% of breast cancer and 25,06% of other cancers. However 40% of women (n=174) is planning to be treated with HT in the future.

CONCLUSIONS: 1. Despite time and effort put into enhancing knowledge about HT, the percentage of women treated with the therapy is constant.
2. The main route of HT administration is oral. Small percentage of women undergoes low dose therapy.
3. There are more fears connected with HT treatment among women in perimenopausal age.
4. A number of women planning to be treated with HT in comparison to the percentage currently undergoing the treatment is disproportionately low.
ADD: This paper is approved by Local Ethical Committee.

History of diabetes .

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INTRODUCTION: Diabetes mellitus - first time the name of the disease was used in 1675 by an English doctor Thomas Willis. Literally it means - â□□siphoning off sweet water". However, the history of this disease has lasted much longer. First description of the disease similar to diabetes was found in Ebers Papyrus , dating back to 1552 BCE.
PURPOSE: Presentation of history of exploration and knowing this disease, this work also shows previously used methods of dealing with diabetes.
METHODS: Descriptive, analytical, synthetic, comparative.
RESULTS: Perceptions of diabetes has changed significantly over the years. the increase of knowledge has contributed to the development of effective forms of treatment.
CONCLUSIONS: Knowing the history of diabetes is helpful understanding of this disease entity.
ADD:

Recurrence of cerebellopontine angle tumors.

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INTRODUCTION: Introduction: Cerebellopontine angle tumours are 10% of all intracranial tumors. The cerebellopontine angle is the anatomic space between the cerebellum and the pons. This is a common site for the growth of acoustic neuromas or schwannomas. The treatment often leads to complete recovery due to benign character of tumors.
PURPOSE: Aim: The aim of the study was to present the reasons for recurrence of cerebellopontine angle tumors.
METHODS: Materials and methods: Materials and methods: 497 patients with cerebellopontine angle tumours were participated with the examination. Patients were divided into two groups: a group of patients with recurrence (A): 78 patients, a group of patients without recurrence (B): 339 patients.
RESULTS: Results: The groups had significant difference in terms of gender(p=0.0001): A; 41men(52.6%); B: 121men(35.7%). There was significant difference in terms of the subtype of neurinoma N ancient(p=0.037): A: 4(5.1%), B: 65(19.2%). There was significant difference in terms of neurinoma subtype B/A (p=0.026): A: 5(6.4%), B: 55(16.2%). There were significant differences: in terms of the total resection rate(p=0.043): A: 41(52.6%), B: 239(70.5%); in terms of presence of VII nerve damage before surgery(p=0.0001): A: 35(44.9%) B: 80(23.6%); in terms of the presence of XII nerve damage before surgery(p=0.015): A: 5(6.4%), B: 7(2.1%).
CONCLUSIONS: Conclusions: The patients with recurrence was a men with rare total resection and with damage of nerves VII and XII before surgery.
ADD: This paper is approved by Local Ethical Committee.

â□□Leukemia as a silent killerâ□□ - Time to diagnosis and first symptoms of acute leukemia in children.

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INTRODUCTION: Leukemia is the most often diagnosed neoplastic disease among children, 75-85% comprise acute lymphoblastic leukemia (ALL) and 10-20% acute myeloid leukemia (AML).
PURPOSE: The aim of our study was analysis of either subjective or physical symptoms, results of laboratory tests before establishing the diagnosis and impact of various factors on time of it.
METHODS: Research group consists of 301 patients with diagnosed ALL (245) and AML (56), in age from 13 day of life to 17 years, 11 months old, treated in the Bone Marrow Transplantology, Oncology, and Hematology Department of WrocĹ□aw Medical University between January 2003 and December 2013. Data were retrospectively analyzed according to the case histories and self-prepared and carried out survey. Statistical comparison was developed by chi-square and one-way anova test.
RESULTS: Time from the first symptoms to diagnosis ranged from 0 to 241 (median 14) days. Clinical symptoms preceding the diagnosis were: pallor in 61 %, fever in 52%, weakness in 48 %, hemorrhagic diathesis in 39%, bone pain in 34%, lymphadenopathy in 61%, hepatomegaly in 50%, splenomegaly in 42%, neurologic symptoms in 2% children and testicle enlargement in 1% boys.
Blood count affirmed: leucopenia (<4 000/ul) in 25%, leukocytes 4000-10 000/ul in 25%, 10 000-100 000/ul in 36%, >100 000/ul in 14%, leukemic cells were present in 86%, agranulocytosis (<500/ul) in 33%; anemia (Hb 7-10g/dl) in 45 %, Hb <7 g/dl in 29 %, thrombocytopenia (<150/ul) in 84% children. In biochemistry panel: elevation of LDH(>200 U/l) in 87%, urea (>45mg/dl) in 3%, creatinine (>1mg/dl) in 5%, uric acid (>7mg/dl) in 20% patients. The coagulograms revealed: decrease in prothrombin concentration (<80%) in 20%, fibrinogen (<2,2g/l) in 13%, AT III(<75%) in 8%, elevation of d-dimmers (>0,5ug/ml) in 83% children. 44 patients had the diagnosing process extended for > 7 days, due to the lack of morphology despite presence of clinical symptoms.

CONCLUSIONS: The most common occurring symptoms preceding the onset and diagnosis of acute leukemia is pallor, weakness, hemorrhagic diathesis, bones pain, lymfadenopathy, hepatomegaly and splenomegaly. Lack of undifferentiated cells in peripheral blood smear doesn't disqualify leukemia. An elevation of LDH and d-dimmers concentration was affirmed

in most cases. Taking an interview in detail, performing fully physical examination and evaluation of peripheral blood morphology with manual smear can shorten time to diagnosis of leukemia.
ADD: This paper is approved by Local Ethical Committee.

Stigmatisation experienced by patients suffering from COPD

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INTRODUCTION: Chronic obstructive pulmonary disease is a major medical issue, characterized by progressive, irreversible obstruction of airways. Tobacco smoking is the most common cause of COPD. This fact often leads to a conviction of a self-inflicted nature of the disease, which may entail certain negative attitude of health care providers towards such patients. This behaviour can be generally classified as stigmatisation and is considered to be especially harmful to both doctor-patient relations and a patient himself, by creating feelings of a self-blame.
PURPOSE: The purpose of this study was to collect information on whether patients with COPD experience stigmatisation from their milieu and, more importantly, from health care professionals they encounter. Additionally a comparison to another chronic disease, also related to tobacco smoking, was carried, to reveal other reasons for COPD patients being especially prone to be stigmatized. We decided to choose coronary artery disease, since it causes deterioration of patients' quality of life similar to COPD.
METHODS: The study was performed at Department of Pneumology and Allergology, N. Barlicki Hospital No.1 and Department of Cardiology, Bieganski Hospital in Lodz. It was accomplished by means of anonymous questionnaires handed out to selected patients. The results were used to make the statistical analysis to determine stigma in everyday life and in contact with health service of individuals suffering from COPD or with CAD. Proposed study protocol was preapproved by the Local Ethical Committee
RESULTS: We gathered 60 questionnaires , distributed evenly between the two groups of patients. The results show clearly, that patients suffering from COPD experience various forms of stigmatisation significantly more often than patients with CAD.
CONCLUSIONS: The study elucidates the problem of stigmatisation related specifically to COPD. The knowledge of high potential of COPD to trigger negative attitude, should lead to a raise of awareness of this fact among professional caregivers and improvement of their approach towards such patients.
ADD: This paper is approved by Local Ethical Committee.

DBS for Parkinson's disease treatment. Experience and results of interdisciplinary Silesian Centre for Parkinson's Disease Treatment in Katowice.

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INTRODUCTION: Introduction: Deep brain stimulation (DBS) is a surgical treatment involving the implantation of a medical device called a brain pacemaker, which sends electrical impulses to specific parts of the brain. DBS in select brain regions has provided therapeutic benefits for affective disorders such as Parkinson's disease.
PURPOSE: Aim: The aim of research was to present results in the treatment of idiopathic Parkinson's disease by the method of DBS.

METHODS: Materials and methods: The study group consisted of 55 patients with Parkinson's disease (K-14, M-41). A group of 67 % (n=37) had made a unilateral procedure and 27 % (n=15) bilateral surgical treatment. The average age of the patients was 58 years. Statistical analyses were performed using the statistical software package Statistica 10.
RESULTS: Results: Dyskinesia, tremor, fluctuations were observed respectively in 78,18% ,81,8 %, 80 % patients before procedure DBS. The average age of onset was 46 years. Duration of treatment of levodopa was 10 years. Dose of levodopa before DBS was 1317 +/-761 mg and after DBS 1117+/- 692 mg. The number of doses of levodopa per day before surgery was 10,68+/-19,24 and after procedure 12 +/-22,69. Beck Depression Inventory before procedure was 14,5+/-8 and after surgical treatment 41,75 +/- 42,23. In the assessment of the functioning of the patient there were used scales such as Hoehn Yahr On, Off, UPDRS I,II, III, IV MMSE. The research presented the results of the use of STN stimulation, including volatge, frequence, pulse width, active contacts.
CONCLUSIONS: Conclusions: Comparison of clinical data before and after DBS patients showed similar improvement regardless of whether DBS surgery was performed unilateral and bilateral. Treatment allows to reduce the doses of L-dopa per day and significant improvements in daily functioning and greater self-reliance patients with Parkinson's disease.
ADD: This paper is approved by Local Ethical Committee.

Association of 54896 C/T polymorphism of BLM gene with the risk of type 2 diabetes mellitus in Polish population.

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INTRODUCTION: Bloom Syndrome is rare disease with characteristic increased predisposition to damage of chromosomes and is caused by mutations in BLM gene. BLM gene is located at long arm of 15 chromosome (15q26.1) in the intron 13. BLM protein gene belongs to family of DNA helicases that unwind DNA helix and participate in the replication, transcription and DNA repair. Interestingly, it has been also found that about 10 % of patients with Bloom Syndrome develop diabetes.
PURPOSE: The aim of this study was to determine the association of 54896 C/T polymorphism of BLM gene with the risk of type 2 diabetes mellitus (T2DM) in Polish population.
METHODS: The study was performed on 338 samples of peripheral blood that was collected from 163 patients with T2DM and 175 age and sex-matched control subjects. Isolation of genomic DNA from samples of peripheral blood was conducted by using the QIAamp DNA Blood Mini Kit. RFLP-PCR (restriction length fragment polymorphism) method was used to perform the genotyping. PCR product was digested by AciI restriction enzyme.
RESULTS: Comparison of the distributions of genotypes and alleles of the 54896 C/T polymorphism of BLM gene and analysis of odds ratios (ORs) showed no statistically significant differences between T2DM patients and controls: C/T 1.18 (0.73-1.90) P=0.502, T/T 1.25 (0.67-2.34) P=0.488, T allele 1.13 (0.83-1.53) P=0.439. The observed genotype frequencies of the 54896 C/T polymorphism of BLM gene in the subject group (P>0.05, ?2= 0.0004) and control group (P>0.05, ?2= 0.0992) were in agreement with the Hardy-Weinberg Equilibrium.
CONCLUSIONS: The 54896 C/T polymorphism of BLM gene was not associated with the risk of T2DM in Polish population.

The study was support from the grant of the Medical University of Lodz; 502-03/0-077-07/502-04-007

ADD: This paper is approved by Local Ethical Committee.

Autoimmune Profiling of MODY2 and Wolfram Syndrome.

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INTRODUCTION: Patients with glucokinase mutations (MODY2) and Wolfram Syndrome (WFS) show specific types of diabetes, generally not associated with autoimmune destruction of the beta cells. However, given the deficient function of beta cells in both disorders we speculated that autoimmunity may be present in such individuals as well.
PURPOSE: The aim of the study was to compare autoimmune profiles of patients with MODY2 and WFS with those in patients with type 1 diabetes (T1DM).
METHODS: Serum samples of 179 patients with MODY2 and 15 with WFS were used in this analysis. Glutamic acid decarboxylase autoantibody (GADA), zinc transporter type 8 autoantibody (ZnT8A), islet-cell antibody (ICA) and islet antigen 2 (IA-2A) levels were measured in all available patients and a representative group of 262 patients with T1DM. GADA, ZnT8A and IA-2A detection was performed with ELISA kits (RSR Ltd, USA), ICA with immunofluorescence. Autoimmune profiles of controls tested during the Islet Autoantibody Standardisation Program (IASP) were included into analysis. Study was financed by a grant of the National Science Center 2011/01/B/NZ5/02814.
RESULTS: GADA, ZnT8A and ICA were tested in the whole cohort and IA-2A in 154 due to limited serum sample availability. Median age equalled 13 years (range 8-30 years) for MODY2 and 7.5 years (range 6-20 years) for WFS group. Frequencies of all antibodies were significantly lower in MODY2 and WFS than in T1DM: GADA 5.03% vs 6.67% vs 67.94% (p=0.0000), ZnT8A 18.44% vs 6.67% vs 78.24% (p=0.0000), ICA 8.38% vs 6.67% vs 67.18% (p=0.0000), IA-2A 10.07% vs 0% vs 60.61% (p=0.0000). Autoantibody positivity rate reached 11.74% for the MODY2 and 5.26% for the WFS group. Both figures were higher than the estimated rate of healthy controls (5%). Younger age at symptoms onset was associated with GADA positivity (mean difference 4.66 years, 95% CI 2.34-6.98; p=0.0007) in MODY2. In addition, ZnT8A and IA-2A were more often positive in boys: 58.74% vs 46.35% (p=0.0080) and: 27.71% vs 10.58% (p=0.0025) respectively.
CONCLUSIONS: Autoantibodies typical for type 1 diabetes occur less often in patients with MODY2 or WFS but more frequently than in the general population. It may be explained by immunisation due to increased or defective apoptosis.
ADD: This paper is approved by Local Ethical Committee.

ESTIMATION OF EXPRESSION LEVEL AND 3435 POLYMORPHISM OF ABCB1 GENE IN PATIENTS WITH STOMACH CANCER

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INTRODUCTION: The product of ABCB1 is glycoprotein P which is a membrane transporter. It removes substances from the inside of cell what could be the reason of difficulties in therapeutic concentration achievement or excessive xenobiotics gathering in cytoplasm.
One of the ABCB1 gene polymorphism is mutation in 3435 position which could lead to gene expression level changing and various structure of the protein. High expression of examined gene is the reason of increased drugs elimination (for example cytostatic drugs) and it can be responsible for anti-cancer therapy resistance. The gp-P has also an anti-apoptotic activity which can further enhance the therapeutic difficulties.

PURPOSE: Estimation of dependence between incidence of certain ABCB1 genotypes considering 3435 polymorphism in patients with stomach cancer in comparison to control group.
Analysis of examined gene expression level.

METHODS: DNA isolated from 16 blood samples taken from patients with diagnosed stomach cancer from Jan Bozy Hospital in Lodz. The control group is 96 samples from healthy donors.
Isolated DNA was multiplied using Polymerase Chain Reaction. Then the amplified material visualized under an electrophoresis in agarose gel. Next steps will compose of digestion with restriction enzymes and electrophoretic identification of genotypes.
To estimate ABCB1 gene expression level RNA will be isolated from the material, subjected to cDNA and then amplified

using the polymerase chain reaction. Reactions will be performed for examined gene and reference gene which encodes B-aktin. The PCR product will be then visualized with agarose gel electrophoresis. Samples will be taken into quantitive analysis using Real-Time PCR with SYBR Green. The results will be statistically analyzed and relative level of ABCB1 gene expression will be defined.

RESULTS: The electrophoresis reveals that in each sample with isolated DNA from both study and control group the expected product (amplified fragment with ABCB1 gene) occurred.
Next steps are in the course.

CONCLUSIONS: There is expectation that research and statistical analysis will prove dependence between incidence of 3435 polymorphism in examined gene in patients with stomach cancer and control group. There is also a suspicion that relative gene expression level in samples from study group will be higher than in control group.
ADD: This paper is approved by Local Ethical Committee.

When should we treat children with prolonged activated partial thromboplastin time? - analysis of causes and indications for treatment

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INTRODUCTION: There are many causes of haemorrhagic diathesis due to disorders in blood coagulation and anticoagulation system. This is not always accompanied by characteristic clinical symptoms. In addition, there are no specific treatment guidelines.
PURPOSE: The analysis of causes and indications for treatment in children with prolonged activated partial thromboplastin time (aPTT). Particular attention was paid to the relationship between the occurrence of clinical symptoms and undertaken treatment.
METHODS: A retrospective analysis of data from the Department of Pediatrics, Oncology, Hematology and Diabetology at Medical University of ĹĄĂłdĹş hospitalized from 2006 to December 2013 regarding patients with prolonged aPTT. Patients with prolonged aPTT as the effect of treatment were excluded.
RESULTS: Inclusion criteria were reached by 109 children with symptomatic and asymptomatic prolongation of the aPTT . 37 patients were treated: 25 with a congenital and 12 with acquired diathesis. All the children with haemophilia A (19) and haemophilia B (2) were implemented with replacement therapy of the deficient blood coagulation factor at the time of onset of clinical symptoms. Among patients with von Willebrand disease (4) and those with deficiency of factors: V, VII, X, XI, XII (19 people) only 6 had clinical signs, 4 children were treated with deficient blood coagulation factors, antifibrinolytic agents and etamsylate.
Acquired prolonged aPTT was observed in 65 patients: 28 with autoimmune basis, 5 with hepatosis, 18 with infectious etiology and 14 without established etiology.
Among this group of patients, characteristic clinical symptoms were observed in 14/65 children, 12 were treated. 5 children with the autoimmune basis and coexistence of symptoms of haemorrhagic diathesis were treated (infusion of immunoglobulin , FFP , tranexamic acid and etamsylate). 3 patients with hepatosis and signs and symptoms of haemorrhagic diathesis, were treated with: vitamin K, FFP, antifibrinolytic agents and etamsylate.
Only 1 patient with infection had symptoms of hemorrhagic diathesis (treated with FFP and etamsylate). 3 of the patients with unknown aetiology had clinical signs (treated with vit.K and etamsylate).
CONCLUSIONS: In each case of symptomatic congenital haemorrhagic diathesis replacement therapy is implemented. The acquired prolonged aPTT is mostly asymptomatic and do not require treatment. The treatment strongly depends on occurrence of clinical symptoms of haemorrhagic diathesis.
ADD:

Epworth Sleepiness Scale as a predictor of obstructive sleep apnea syndrome

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INTRODUCTION: Epworth Sleepiness Scale (ESS) is a questionnaire intended for assessement of daytime sleepiness among patients with suspected obstructive sleep apnea syndrome (OSAS).
PURPOSE: The aim of this study is to assess predictive value of ESS in OSAS and to establish whether other factors contribute to the questionnaire score.
METHODS: We gathered data on 1128 patients from Sleep and Respiratory Disorders Centre, including 851 men and 277 women, all of whom were referred to the centre on the basis of symptoms typical for OSAS (witnessed apneas, excessive daily sleepness, unrefresing sleep) and who filled the ESS questionnaire on their first visit. The patients underwent polysomnography, which is considered the gold standard in OSAS diagnosis. Other variables included in our analysis were: age, sex, BMI, total sleep time, REM sleep phase time (as a percentage of total sleep time) and apnea-hypopnea index (AHI).
RESULTS: The prevalence of OSAS (i.e. AHI greater or equal to 5/hour) in the studied group is 75%. Based on a ROC plot (AUC 0.56, 95%CI 0.52-0.60), the optimal cut-off point (the highest sum of sensitivity and specificity) for predicting OSAS was ESS score of 10. It is in agreement with a general recommendation that if a patient scores 10 or higher, he suffers from excessive sleepiness and polysomnography is recommended. Yet such a score increases the probability of OSAS only slightly - from 75% to 80%. If ESS score is lower than 10, chance that patient does not suffer from OSAS rises from 25% to 28%.
As discovered with the use of logistic regression, probability of gaining 10 or more ESS points increases with the growth of AHI (OR=1.02; 95%CI 1.01 - 1.04, $p<0.05$), BMI (OR=1.06, 95%CI 1.01-1.06, $p<0.001$) and total sleep time (OR=1.18, 95%CI 1.06-1.3, $p<0.01$).

CONCLUSIONS: The low predictive value of Epworth Sleppiness Scale and the fact that patient's score does not depend only on the severity of respiratory disorders during sleep, make it inefficient in evaluating the probability of obstructive sleep apnea syndrome.
ADD:

Do the different methods of QRS duration measurement have impact on qualification to cardiac resynchronization therapy?

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INTRODUCTION: Magnitude of the electrical delay, expressed by prolonged QRS duration (QRSd), is one of the major determinants of cardiac resynchronization therapy (CRT) efficacy. In our study we evaluated different methods for determining QRSd in patients directed to CRT comparing QRSd in all of 12 standard leads and the value automatically measured by electrocardiograph (QRSaut) with QRSmax derived according to the guidelines (QRSd in the lead where QRS complex is the widest).
PURPOSE: The aim of the research was an attempt to determine the ECG lead in which the QRSd corresponds the best with the QRSmax and if there is a statically significant correspondence between QRSmax and QRSaut values which could allow better QRS evaluation during the qualification process for the CRT.
METHODS: The retrospective study of the 12-lead electrocardiogram records was performed. 77 patients directed to CRT were involved into the research, nevertheless, 4 of them were excluded from the research as the ventricular stimulations were discovered in theirs ECG records. 62 (84.9%) from the group of 73 patients were men. The average age was 66.9 (45 - 82)

years. The QRSd times were evaluated in each lead. For each patient, the values of QRSmax were determined. QRSaut duration times were collected directly from the ECG records. Following, the T tests for the dependent samples and the Chi2 McNemara tests were applied to the averages of the measured values.
RESULTS: It was indicated that the QRSaut differs from QRSmax by more than 7.5ms (172.41 vs. 179.95, p<0.001). In most cases, the values of QRSmax were determined in V3 (26.03%) and V4 lead (15.07%). 75.34% of all measurements were derived from precordial leads. The 2013 ESC recommendations were fullfilled In 69 patients when QRSmax was taken under consideration and in 63 patients in case of QRSaut. The numbers of CRT responders were 33 and 31, respectively (p>0.05).
CONCLUSIONS: The value of QRS measured automatically should not be taken into consideration during the process of qualification for cardiac resynchronization therapy, because it can disqualify the patient from the therapy when it may be helpful. It was proved that the QRS duration measured in any of 12 standard leads does not correlate with the value of QRSmax in extent, which confirms there is no preferred lead in CRT qualification process. However, the most frequently QRSmax was obtained in V3 lead.
ADD:

KNOWLEDGE AND ATTITUDES TOWARDS ORGAN DONATION AND TRANSPLANTATION AMONG STUDENTS IN LODZ

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INTRODUCTION: Little is known about knowledge and attitudes of Polish students towards organ donation and transplantation (Tx). Public awareness is a key to success of organ Tx programme.
PURPOSE: The aim of this cross-sectional study was to evaluate the level of knowledge, attitude and willingness towards organ donation among university students in Lodz.
METHODS: 59-item self-designed questionnaire was conducted among 360 students (114M, 246F; mean age 24.2Âą6.5 years) from three universities, i.e. : Medical University of Lodz, 2nd-, 5th- and 6th-year students (n=176), University of Lodz, 1st- and 3rd-year students (n=90) and University of Humanities and Economics, 2nd- and 5th-year students (n=82). The survey was divided into four parts: awareness (basic information, statistics and legal regulations), attitude, personal experience and demographics. The responses were assessed on the scale of 0-28 points (1 point for each correct answer). Study protocol was approved by the Local Ethics Committee.
RESULTS: Students achieved 13.9Âą5.3 points in the knowledge assessment. Medical students have significantly (p<0.000) higher knowledge (17.8Âą3.3 points) than students from other universities (10.4Âą4.3 points). 6th-year and 2nd-year medical students achieved 19.3Âą2.9 points and 15.7Âą2.6 points, respectively (p<0.000). A significant positive correlation between age and knowledge level was found in both groups. Medical students acquired their knowledge mostly during university classes; other students received most information from mass media and the Internet. Knowledge level did not depend on personal experience (Tx among family/friends or presence of disease treated with Tx). No significant relation between a place of residence and knowledge level was revealed. 78.7% of participants have an established opinion about organ donation and Tx. Willingness for deceased as well as living organ donation was declared by 76% and 93% of respondents, respectively. However, only 16% of participants filled in the donor card, 54% informed their family and relatives about their attitude. 90.6% of interviewees would like to have transplant surgery if necessary. Only 3.6% of participants declared that Tx are against their religious beliefs.
CONCLUSIONS: Most university students have a positive attitude towards organ donation and transplantation. Majority of students with the exception of the medical faculty present low level of knowledge of transplantation-related issues.
ADD: This paper is approved by Local Ethical Committee.

Can acute gastric ulcers be prevented by carbon monoxide?

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INTRODUCTION: Carbon monoxide (CO) is biologically active product of heme metabolism. It has been identified that CO can modulate a variety of physiological processes, including vasodilation, neurotransmission, platelet aggregation. This gaseous mediator is known to act as important anti-inflammatory, anti-proliferative and antiapoptotic factor, however, the contribution of this gas to the mechanism of gastroprotection against acute mucosal injury has been little studied.
PURPOSE: The aim of our study was to determine the involvement of tricarbonyldichlororuthenium (II) dimer (CORM-2), a CO-donor, in the mechanism of gastric mucosal protection against exposure to 75% ethanol.
METHODS: The study was approved by the Institutional Animal Care and Use Committee of Jagiellonian University Medical College in Cracow. Rats were treated with CORM-2, and received 30 min later 75% ethanol without or with: 1) group (6 rats): indomethacin - the non-selective cyclooxygenase (COX) inhibitor, 2) group (6 rats): SC-560 - selective COX-1 inhibitor, 3) group (6 rats): celecoxib - selective COX-2 inhibitor, 4) group (6 rats): 1H-[1,2,4]Oxadiazolo[4,3-a]quinoxalin-1-one (ODQ) - guanylyl cyclase inhibitor, 5) group (6 rats) glibenclamide - K(ATP) channel blocker. These inhibitors were used to prove if CO requires prostaglandins, guanylyl cyclase or K(ATP) channels to its potent gastroprotective action. The area of gastric lesions was measured by planimetry, the gastric blood flow (GBF) was determined by laser Doppler technique.
RESULTS: CORM-2 dose-dependently attenuated gastric lesions and raised GBF. These protective effects of CORM-2 were completely reversed by indomethacin and SC-560 but slightly affected by celecoxib. ODQ and glibenclamide also significantly attenuated the gastroprotective and hyperemic effects of CORM-2.
CONCLUSIONS: Lack of prostaglandins, attenuated guanylyl cyclase activity and blocked K(ATP) channels lead to lose of beneficial effect of CO. Therefore, we can conclude that CO released from CORM-2 exhibits gastroprotective activity against ethanol-induced gastric lesions via mechanism involving an increase in the gastric microcirculation mediated by activation of PG-COX system, guanylyl cyclase signaling cascade and K(ATP) channels.
ADD: This paper is approved by Local Ethical Committee., This work is a part of the doctoral thesis.

Selected biochemical parameters and blood morphology in prognostic evaluation of the effect of cardiac rehabilitation after STEMI.

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INTRODUCTION: Introduction
Comprehensive cardiac rehabilitation is an integral element of treatment in patients who experienced an acute coronary syndrome. Its purpose is to let the patient return to physical activity (improvement of physical fitness). Additionally, it contributes to entire group of actions in the field of secondary prevention. Subjects who are involved in comprehensive cardiac rehabilitation programs are significantly more likely to achieve the objectives specified in the guidelines of cardiovascular disease prophylaxis.

PURPOSE: Objective:
The aim of the study was the evaluation of the influence of anemia, leukocytosis, thrombocytopenia, hyperglycaemia and lowered glomerular fraction on the risk of cardiac rehabilitation failure (phase II of comprehensive cardiac rehabilitation in hospital) in subjects who experienced ST-elevation myocardial infarction (STEMI).

METHODS: Methods:
Study included 136 individuals who experienced STEMI (96 men, 40 woman) aged 60.1+/-11.8 admitted to phase II of cardiac rehabilitation. During the first days of hospitalization patients' blood morphology test, as well as serum glucose and creatinine (estimated glomerular filtration rate; eGFR) concentration test were taken. Depending on the result of cardiac

stress test, subjects were qualified to A, B, or C rehabilitation model. Workload in watts (W) was measured in all of the subjects during interval training on bicycle ergometers. Based on logistic regression analysis and odds ratios of studied parameters, their prognostic impact on the risk of cardiac rehabilitation failure was defined. The risk was specified as failure to achieve more than 5W workload increase, despite exerted rehabilitation program.

RESULTS: Results:
Building logistic regression model revealed the most statistically significant risk factors for cardiac rehabilitation failure. Based on these risk factors, the rate of cardiac rehabilitation failure was determined. Decreased eFGR (<60ml/min/1.73m2) or leukocytosis (WBC >10x103/ul) was associated with 4.35-fold increase of the risk of cardiac rehabilitation failure. Decrease in eGFR together with leukocytosis was associated with 18.92-fold increase of the risk of cardiac rehabilitation failure.

CONCLUSIONS: Conclusions:
Blood morphology test and eGFR rate play important role in the prognostic evaluation of the effect of cardiac rehabilitation. Lowered eGFR and leukocytosis are the main determinants of the risk of cardiac rehabilitation failure. The rete of cardiac rehabilitation failure may be useful in classification of patients to suitable rehabilitation model.

ADD: This paper is approved by Local Ethical Committee.

Analysis of the influence of cognitive disorders on the efficiency and safety of vitamin K antagonists treatment in patients with atrial fibrillation.

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INTRODUCTION: Atrial fibrillation (AF) is an indication for anticoagulation treatment. The most commonly used drugs are vitamin K antagonists (VKA) - acenocoumarol or warfarin. Use of these drugs requires INR monitoring and maintaing the ratio in the therapeutic range (2-3). Non-therapeutic INR is associated with higher risk of bleeding and thromboembolic complications. In elderly patients treatment can be very difficult because of higher incidence of AF and cognitive disorders.
PURPOSE: The aim of the study was to evaluate the impact of cognitive disorders on the efficiency and safety of vitamin K antagonists treatment in patients with AF.
METHODS: The study enrolled 60 patients with AF treated with VKA and admitted to the University of ĹĎĂłdĹş Internal Disease and Clinical Pharmacology Clinic. All patients cognitive disorders were evaluated using the Mini-mental state examination (MMSE). INR was evaluated on admission to the hospital. The effectiveness of VKA therapy was determined by the ratio of TTR (time in therapeutic range) during the period of three months.
RESULTS: The study involved 60 patients aged 54-90 years. Depending on the result of the MMSE patients were divided into 3 groups: I group with no cognitive disorders (MMSE>27)-n=26; II group with cognitive impairment without dementia (MMSE=24-27) - n=24 and III group with patients with dementia (MMSE?23) - n=10. Non-therapeutic INR was present respectively in 54%, 79% and 80% patients in these groups.Percent time in therapetic INR range (TTR) in the majority of patients with MMSE?27 was <60%.
CONCLUSIONS: 1) Cognitive disorders affect the efficiency and the monitoring of VKA therapy. 2) The occurrence of cognitive disorder is associated with a higher incidence of non-therapeutic INR. 3) The decision to implement a vitamin K antagonist treatment should be preceded by an examination of cognitive function using the MMSE.4) INR should be monitored more frequently during VKA treatment among patients with AF and cognitive disorders.
ADD: This paper is approved by Local Ethical Committee.

Does treatment deferral in intensive phase of therapy affect the prognosis in children treated for acute lymphoblastic leukemia?

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INTRODUCTION: Treatment of acute lymphoblastic leukemia (ALL) consist of multidrug, long-lasting, intensive chemotherapy administered in precisely defined time. However, deferrals of drug administration due to severe complication are unavoidable during therapy.
PURPOSE: The aim of this study was identification of risk factors for the treatment deferrals in intensive phase of ALL therapy and assessment their influence on overall survival (OS) and event free survival (EFS).
METHODS: We analyzed retrospectively dates of 111 patients with ALL who were admitted to Oncology Unit Medical University of Lodz from 2003-2010 and treated according to BFM ALL IC 2002 Protocol. The course of treatment in: ProtI, M,II, III and HR were assessed. The impact of risk factors, treatment deferrals duration and amount in defined therapy phase on OS and EFS was analyzed using Cox regression.
RESULTS: Mean treatment deferrals duration in intensive therapy phase was 50.5 days and mean number of deferrals was 7.88. Deferral presence in ProtIB was significantly correlated with % of blasts in bone marrow during diagnosis (p=0.042). Risk group has an effect on deferrals number in ProtM/1HR (p=0.007) and in ProtII,III,2HR (p=0.0007). Positive correlation between: number of deferrals, deferrals time in ProtI and daily steroid's doses/kg taken in ProtIA (p<0.05). Shortening of EFS was associated to: number of deferrals in ProtII,III,2HR (HR 1.066, 95% CI 1.004-1.134, p=0.038);age (HR 1.15, 95% CI 1.01-1.30, p=0.027); BMI at diagnosis (HR 1.18, 95% CI 1.01-1.37,p=0.03).Shorter OS was significantly correlated with: deferrals number in ProtM/1HR (HR 2.2, 95% CI 1.17-4.13, p=0.014)and ProtIB (HR 3.04 95% CI 1.22-7.59, p=0.017while longer OS correlated with daily steroid's doses/kg taken in ProtIA (HR 0.06, p=0.03).Time of deferrals in ProtI correlated positively with time of deferrals during re-induction. Patient with longer deferrals duration were predisposed to longer deferral period in re-induction(p<0.05). Risk group affects total time(p=0.001) and number of deferrals (p=0.027).
CONCLUSIONS: Treatment deferral in intensive phase of therapy affect the prognosis in children treated for acute lymphoblastic leukemia. The main risk factors for treatment deferrals are: risk group, age and BMI at diagnosis and steroid's dose.
ADD:

How do you cope with stress, doctor? Personality traits and styles of coping with stress among physicians

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INTRODUCTION: Physicians are a occupational group exposed to very high levels of stress in the workplace. Reactions to the stress and ways to cope with it are characteristic of an individual. Personality traits may affect to how individuals react in stressful situations. An accumulation and high severity of these situations in combination with non-effective strategies of coping with stress may cause mental disorders.
PURPOSE: To evaluate styles of coping with stress and theirs relationship with personality traits among physicians.
METHODS: A survey questionnaire has been conducted on physicians (n=50, age: 43Âą12 years; work experience: 18Âą12 years; 50% male) employed at Norbert Barlicki Memorial
Teaching Hospital No. 1. To diagnose the Big Five personality traits such as: neuroticism, extraversion, openness, agreeableness and conscientiousness NEO-FFI inventory (NEO Five Factor Inventory) was used. To evaluate styles of coping with stress physicians filled-in Coping Inventory for Stressful Situations (CISS) distinguishing: task-oriented (SSZ), emotional

(SSE) and avoidance (SSU) styles of coping. Style 'SSU' has two subtypes: engaging in alternative activities (SSU-acz) or seeking for social contacts (SSU-pkt).

RESULTS: SSZ was a dominant style of coping with stress among physicians. There was a significant positive correlation between SSZ and dimensions of personalisty such as: conscientiousness (r=0,48; p<0,05) and extraversion (r=0,32; p<0,05). SSE was positively correlatad with neuroticism (r=0,49; p<0,05) and agreeableness (r=0,44; p<0,05), while SSU correlated only with agreeableness (r=0,35; p<0,05). In the women: age (r=-0,49; p<0,05) and work experience (r=-0,46; p<0,05) were negatively correlated with conscientiousness and did not affect to the style of coping with stress. In the men: age (r=-0,43; p<0,05) and work experience (r=-0,44; p<0,05) were negatively correlated with SSU. In general sex and specialization type (surgical vs non-surgical) of physicians did not affect to styles of coping with stress in this occupational group.
CONCLUSIONS: The dominant style of coping with stress among physicians was SSZ. The style of coping with stress depends on personality traits of doctors.
ADD:

Clinical characteristic of children and adolescents with IgA deficiency and type 1 diabetes mellitus

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INTRODUCTION: An increased prevalence of immunoglobulin (Ig) A deficiency has been documented in a number of autoimmune diseases, including type 1 diabetes mellitus (T1D). However, literature is lacking on clinical manifestations of children with IgAD and T1D. Better knowledge in this field is essential for future genetic studies aimed at revealing possible common pathogenesis of these disorders.
PURPOSE: Clinical characteristics of patients with IgAD and T1D comparing to diabetic patients with normal IgA levels.
METHODS: The clinical data (medical records and structured parental questionnaire) from 34 patients with IgAD and T1D, aged 4-18 yr, was reviewed and compared with the data of 32 patients with T1D and normal IgA level. The patients were selected from the cohort of 616 patients of Department of Pediatrics, Oncology, Hematology and Diabetology, Medical University of Lodz with previously evaluated serum IgA, IgM and IgG levels (ELISA). The study was approved by Local Ethical Committee.
RESULTS: Out of 616, 7 IgA deficient patients with selective (IgAD < 0,07 g/l) and 27 with partial IgAD were identified, giving the prevalence of 1:88 in selective and 1:23 in partial IgAD group. IgAD individuals reported significantly more common respiratory infections (55% vs 22,58%; p=0,018), allergies (55% vs 21,88%; p=0,015), additional autoimmune diseases (45% vs 12,5%; p= 0,02) and hospitalizations caused by severe infections (30% vs 3,45%: p=0.028). Tonsillectomy was reported only in IgAD deficient group (25% vs 0%; p= 0,0039). Interestingly, among selective IgAD patients 1 was also diagnosed with 18 q del syndrome, 1 with dystonia and hypoplasia of corpus callosum, 1 had epilepsy and 1 alcaptonuria. The course of T1D and glycemic control did not significantly differ between the groups (average HbA1c 7,47% vs 7, 69%).
CONCLUSIONS: IgAD diabetic patients exhibit an increased incidence of respiratory infections, allergies, other autoimmune diseases as well as coexistence of specific phenotypes. There is no significant difference in clinical course of T1D among IgA deficient and not deficient patients.
ADD: This paper is approved by Local Ethical Committee.

Eating habits of people during expeditions in the high mountains.

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INTRODUCTION: Mountain higher than 5000 m above sea level are a big challenge for the human body which in these different conditions need to implement some adaptive mechanisms.
Reduced intestinal absorption associated with intestinal ischemia occurring in the high mountains leads to deficiencies of vitamins and minerals. Increased excretion of water from the body through urine output, sweat and respiratory system characteristic for low ambient temperature can cause dehydration.
Proper nutrition during the mountain expeditions can have a positive impact of highly specialized and important process called acclimatization which is a clue to maintain homeostasis.

PURPOSE: The aim of the study was to evaluate eating habits and nutrition of people during expeditions in the high mountains.
METHODS: The study was performed in a group of 50 people (36 men, 14women). During the study all participants was asked to complete author`s on-line questionare consisting of 40 questions. The following parameters was verified: altitude,ambient temperature, diet and time of expedition.
The data was statistically analized by using descriptive statistics as: mean, standard deviation, maximum value, minimum.
RESULTS: â□˘ BMI of most people living in the mountains is above 20
â□˘ Over 1 of respondents eats only two meals a day
â□˘ The most commonly used spices are pepper, salt and pepper
â□˘ Nearly half of the respondents consumed alcohol during the trip
â□˘ Fifth respondents suffering from chronic diseases
â□˘ Nearly 60% of respondents noticed changes in food preferences during the expedition
CONCLUSIONS: Higher BMI before the expedition results in better reserve of energy and may prevent excessive weight loss during the intensive effort.
Consuming too small number of meals per day causes the improper distribution of calories, which may lead to insufficient caloric supply.

ADD: This paper is approved by Local Ethical Committee.

Assessment of hydatid diseases’ treatment in XIX century: study of 7 cases.

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INTRODUCTION: Hydatid disease is a parasitic infection caused by the larval stage of the tapeworm Echinoccocus granulosus. Dogs and wolves are the de?nitive host. Hydatid cyst are commonly overlooked.
PURPOSE: The aim of the study was the assessment of hydatid diseases’ treatment in XIX in relation to current methods.
METHODS: In our retrospective study we used descriptive statistics based on literature review (7 cases from Addenbrooke's Hospital, Cambridge; Newcastle-Upon-Tyne Infirmary; General Infirmary, Leeds; Middlesex Hospital). All patients underwent treatment in 1877. Additionally, we used inductive thinking.
RESULTS: Average age of our patients was 24.71+/-11.95 years. The youngest was 8 years old, the oldest 42. Women represented 57% of our study group. Mean temperature was 101,68+/-1.59 F. The most popular localization of tumor was liver (43%). Sizes of tumors were described as: â□□about the size of a nutâ□□, â□□about the size of the child’s headâ□□ or by inches (useless for descriptive statistics). Surgical methods included: needle aspiration (57%) and use of trocar and cannula (43%), 1 patient was treated with both of them. Non-surgical methods included iodide of potassium per os - 1

patient. Mean volume of fluid removed during therapy was 54.5+/-61.67 ounces. Mean time between notice of the tumor and treatment was 28.7+/-26.82 months. The most common content of fluid were echinococci (43%). Patients condition was good in 86%, and there were strong positive relation with successful treatment (100%) in this group. Only 14.29% of patients died - due to peritonitis. Autopsy revealed approximately 5-months old fetus inside the tumor. Nowadays, the liver is the most common localization of echinoccocal cysts (75% of cases). Diagnoses are based not only on palpation and osculation. USG and CT allow accurate assessment of tumors' size and localization. Treatment procedure include not only aspiration methods, but also laparotomy (new strategy: removal of tumor integrally).
CONCLUSIONS: Despite the lack of the medical imaging methods, treatment of hydatid diseases in XIX century was quite effective and safe. Removal of tumor integrally (not only the fluid) decreased recurrence. Development of medical imaging and tools led us to slight adjustment of the procedures.
ADD:

Interwar contraception in Poland.

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INTRODUCTION: Interwar was the time of important cultural and moral changes. Polish territories had been liberated. In Poland at that time some social groups argued for more liberal morality. As a result of these changes occurred a need for improved contraception.
PURPOSE: Description of methods which were used to control number of births and in prevention of pregnancy. Comparison of those methods with current ones. Comparison of levels of contraceptive usage in diverse groups of women.
METHODS: Descriptive, synthetic, comparative. Analysis of polish medical and common journals from interwar.
RESULTS: Usage of contraceptive methods in interwar Poland was very various. It depended on the place of living (urban or rural), level of education and occupation.
CONCLUSIONS: Improvement of known methods including new, better materials, was closely associated with political and cultural situation in Poland.

ADD:

Clinical aspects of bile reflux in children

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INTRODUCTION: Duodenogastric reflux (DR) is a condition when biliary fluid flows upward from the duodenum into the stomach. DR is believed to cause damage to gastric mucosa. Most reports on this disorder concern adult patients.
PURPOSE: to present the fact that bile reflux includes children in different age, not only happens to adult patients.
METHODS: 220 children with abdominal pain were studied between February 2010 and December 2013 in Pediatrics Department in Bytom. There were 70 men (31,82%) and 150 women (68,18 %) in age from 4 to 18 years (average 13,79Âą6,93 years). Endoscopic features of duodenogastric reflux were found in 113 patients (average 51,36%), exactly 28 men (24,78%) in average age 14,36Âą3,09 and 85 women (75,22%) in average age 14,07Âą3,44.
RESULTS: There were no complications. The urease test was positive in 49 patients (22,27%). The patients with bile reflux and urease test form 33 patients, in age average 14,42Âą2,8. The endoscopy in group of bile reflux showed erosions of the mucous membrane in 6 patients and inflammation in 4 patients of the esophagus, stomach and duodenum. More often the

inflammation and erosion was present only in esophagus and stomach. The swollen folds of pylorus and duodenum was found in 42 patients. Diagnosed inactive gastritis in 79patients, active gastritis in 16patients, hyperplasia in 4 patients. The patients without bile reflux had similar results in endoscopic features as children with bile reflux.
CONCLUSIONS: There was no significant difference in the severity of inflammation and erosions in gastric and duodenal mucosa between children with bile reflux and children without this disorder. This suggests that there might be other factors, such as genetic predisposition and psychogenic factors which cause changes in mucosa.
ADD:

Thyroid cancer and hypothyroidism-risk factor assessment of severe complications affecting the thyroid gland and appearing in children after cancer treatment.

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INTRODUCTION: Malignant neoplasms occurring in children are largely curable- about 80% patients recovery from disease. For that reason late complications are one of the major problem in pediatric oncology and hematology. Diseases concerning the thyroid gland connected with previous oncologic treatment are not rare but usually not life-threating.
PURPOSE: The aim of this study was to identify the risk factors for life-threating and severe complications affecting the thyroid gland and appearing in children previously treated for malignant neoplasms .
METHODS: We analyzed retrospectively dates of 50 patients with diagnosed thyroid gland disease (28-hypothyroidism, 8-tumors, 8-cysts)after oncologic treatment who were admitted and treated in Department of Pediatrics, Oncology, Hematology & Diabetology, Medical University of Lodz from 1997-2012. Control group was composed by children treated in our clinic in the same time without complications affecting thyroid gland (n=239). In statistical analysis were used Spearman's rank correlation coefficient,Mann-Whitney U test and multivariate analysis .
RESULTS: Thyroid gland diseases were frequent observed in: girls (p=0.05), older children at diagnosis of neoplasm(p=0.0003) and at complication diagnosis(p=0.00001),children with brain tumor and lymphomas and irradiated(p=0.00004). Tumor occurring correlated with shorter radiation duration (p=0.037) and higher anti-TPO concentration (p=0.036). Hypothyroidism was associated to: shorter time from radiation end to thyroid disease(p=0.002). Lower TSH concentration correlated negatively with the largest diameter of tumor or cysts (p=0.037) and volume of tumor or cysts (p=0.036)while lower FT3 concentration with dose fraction (p=0.018).Negative correlation between anti-TPO concentration and time from radiation end to thyroid complication (p=0.013) occurred. Shortening of time from treatment end to thyroid disease was associated to: older age at diagnosis of neoplasm (p=0.000004)and of thyroid disorder(p=0.00001), higher total radiation doses(p=0.038) and higher anti-TPO concentration (p=0.07).
CONCLUSIONS: Severe complications affecting the thyroid gland are significant problem in children after treatment of cancer. Systematic monitoring of possible complication is need.
ADD:

Differentiation of induced pluripotent stem cells (iPS) into insulin-producing cells using a combination of molecules.

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INTRODUCTION: As the technology of obtaining induced pluripotent stem cells from somatic cells develops, possibilities of using these cells' differentiation potential multiply. People suffering from diseases caused by insufficient number of properly functioning cells could benefit from therapies based on receiving differentiated iPSc's according to their needs. In case of type 1 diabetes, patients treated with pancreas Ă□-cells acquired this way would avoid waiting for the few donors, moreover the risk of transplant rejection would be minimised.
PURPOSE: The aim of this study was to try to differentiate iPS cells derived from human skin fibroblasts into insulin-producing pancreas Ă□-cell-like cells.
METHODS: The iPS cells were treated with combination of molecules in order to receive insulin-producing cells. The differentiation process was divided into three main parts. Firstly, in order to differentiate iPS cells into definitive endoderm, treatment with activin A and GSK3Ă□ inhibitor was pursued, followed by combined treatment with retinoic acid, a bone morphogenic protein inhibitor and a transforming growth factor-Ă□ inhibitor. The third step included using several compounds, such as forskolin and dexamethasone. The results were verified using real-time PCR after completing all of the three stages of the differentiation process.
RESULTS: Levels of insulin mRNA in received cells were measured using RT-PCR and proved to be XXX times higher than in iPS cells.
CONCLUSIONS: The results of this study suggest that obtaining Ă□-cell-like insulin-producing cells from induced pluripotent stem cells could be possible using small molecules. These cells, subsequently to confirming and improving the procedure, could be a part of type 1 diabetes treatment adjusted to a certain patient. This experiment indicates that the method should be explored further so that finally it would only require small chemical molecules to the differentiation process.
The study was supported by European Union Grants for Innovation, Grant No. POIG.01.04.00-10-011/11-00

ADD:

The role of ultrasonography in diagnostics of subacute thyroiditis - review of literature and retrospective analysis ultrasound imaging reports

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INTRODUCTION: Subacute thyroiditis (SAT) is the disease of unknown pathogenesis, which is characterized by unilateral enlargement of the thyroid, pain radiating to the jaw, fever, transient gland dysfunction. Diagnosis is based on the typical clinical picture, laboratory results and characteristics of ultrasound image (hypoechoic, inhomogeneous irregular areas with often increased vascularity). But in some cases only thyroid biopsy resolves diagnostic doubts.
PURPOSE: The aim of the study was a detailed analysis of the ultrasound image of subacute thyroiditis and evaluation of ultrasound imaging (US) effectiveness in confirmation of the clinical suspicion of SAT.
METHODS: The results of US were analyzed in 45 patients (including 41 women, mean age 46) with cytological diagnosis of SAT. The incidence of goiter, vascularization in Doppler imaging, echostructure and echogenicity of the gland, as well as the presence and character of focal lesions were evaluated.
RESULTS: It was found that in 31 patients (69%) the thyroid was increased, and in 12 (39%) of them the enlargement was asymmetric. The structure of the gland was heterogeneous in 42 (93 %) patients, including 7 patients with heterogeneity limited to one lobe only and in other 7 with focal heterogeneity. Thyroid parenchymal echogenicity was reduced in 22 (49 %) patients, and 34 (76%) persons had hypoechoic areas of irregular shape, which were unilateral in 5 cases. The blood supply of the thyroid gland was increased in 2 (4%) patients and decreased in 10 (22%). Enlarged lymph nodes were found in 13 (29%) subjects, in 7 (16%) patients unilaterally. US image of the thyroid was variable, depending on the phase of thyroiditis.
CONCLUSIONS: Utrasonography in combination with clinical data allows to diagnose SAT in majority of patients with clinically apparent phase of the disease. In other cases, the US image can only support the optimal location of aspiration

during biopsy of the thyroid, which finally confirms the diagnosis.
ADD: This paper is approved by Local Ethical Committee.

EPIDEMIOLOGY OF PRIMARY HYPERPARATHYROIDISM IN PATIENTS HOSPITALIZED AT DEPARTMENT OF ENDOCRINOLOGY AND METABOLIC DISEASES MEDICAL UNIVERSITY OF LODZ

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INTRODUCTION: Primary hyperparathyroidism (PHPT) is caused by excessive secretion of parathyroid hormone, inadequate to the need of the organism and resistant to negative feedback of hypercalcaemia. The abnormal autonomous production of PTH results in hypercalcaemia and hyperphosphaturia. The incidence of PHPT is approximately 4-6 per 100 0000/yearly and it is more common in women than in men. The peak of incidence occurs in the sixth decade of life.
PURPOSE: The aim of this study was to assess the prevalence of PHPT and to characterize the group of patients hospitalized for this disease in Department of Endocrinology & Metabolic Diseases Medical University of Lodz.
METHODS: The research was retrospective; 22753 of medical records from years 2001-2013 has been included.
RESULTS: In the studied group PHPT was identified in 100 patients, including 13 men and 87 women. The mean age was 55.8Âą16.7, the mean BMI was 24.89Âą4.85. The following clinical mask of PHPT have been found; 43% patients had low bone mineral density, 7 forearm fractures have been noted; 41% patients had history of kidney stones and 8% suffered from peptic ulcer. PHPT was accompanied by overweight or obesity in 40% subjects, by hyperlipidemia - in 36%, by hypertension - in 26% and in 9% by diabetes.
Total serum calcium concentration varied from 2.5 to 4.96 mmol/l, the mean value was 2.84 mmol/l (reference levels: 2.1-2.55 mmol/l), the PTH concentration varied between 60.97-2637 pg/ml, average 218.73 pg/ml (normal level: 15-65 pg/ml), a range of serum phosphate was 0.56-1.69 mmol/l, average 0.96 mmol/l (normal level: 0.81-1.45 mmol/l). In the studied group 55% patients were qualified for the parathyroidectomy, the remaining patients were referred to observation, in 45 cases symptomatic treatment was implemented.

CONCLUSIONS: 1. In the researched group PHPT occurred in 0.44% of patients. Women over 50 were affected most frequently, the ratio of females to males has been 7:1.
2. The patients displayed often the asymptomatic form of PHPT, except of low bone density in 43%, nephrolithiasis in 41% and gastrointestinal mask in 8% of cases.
3. PHPT was frequently accompanied by overweight and hyperlipidemia.

ADD:

Burout syndrome and stress in a group of medical students.

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INTRODUCTION: Medical students are continously exposed to psychological stressors throught their professional training that, if persistent, can lead to burnout syndrome.
Burnout syndrome is typically characterised by long-term psychological and emotional exhaustion that is accompanied by

feelings of depersonalisation and decreased capacity to manage work requirements. Can also lead to cynicism and lower professional efficacacy.
Burnout can also affect the doctor-patient relation, leading to confidence decrease. As a result the patient may not follow the medical recommendations properly which can lead to unefficient therapeutic results.
PURPOSE: The aim of our study was to evaluate the level of percived stress and the characteristics of the occurrence of burnout syndrome among medical students.
METHODS: The study included 180 students (30women, 30 men from I, III, VI year of study) at Medical University of Lodz. The following questionaires were used: Karolinska Insitute- the state of burnout syndrome and the scale of the PSSS-10 to determine the level of stress. The students were also asked to complete a demographic questionaire and activity preferences regarding training in the broad soft skills.
The data was statistically analyzed. ANOVA test, post-hoc Scheffe test and t-Student test were used. Descriptive statistics involved: mean, standard deviation,maximum value, minimum value.
$p<0,05$ was considered as stastistically significant.
RESULTS: The study revealed a positive correlation between the level of stress and the number of symptoms of bournout. A statistically significant difference between first year students (16, 53, SD=10,63) and sixth year students (11,63, SD=7,74) in the range IV burnout factor associated with more somatic symptoms. Statistically significant differences in factor V (associated with negative emotions) burnout syndrome within five years of study students according to gender (women average -5,8, men average- 9,67 , p=0,020).
CONCLUSIONS: More professional training in soft competence and prevention of burnout syndrome from the first year of study should be highly recomended.
ADD: This paper is approved by Local Ethical Committee.

Sleep disturbances among medicine students in Poland

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INTRODUCTION: Sleep disturbances are probably very common in medical students and are the cause of numerous untoward effects affecting daily functioning.
PURPOSE: The aim of this study is evaluation of character and frequency sleep disturbances among medicine students and their possible influence on the scientific results.
METHODS: The study included 645 students of medical faculties of the 10 medical universities in Poland at the age of 18 to 25 (110 students of the 1st year, 98 of 2nd year, 100 of 3rd year, 145 of 4th year, 120 of 5th year and 70 of 6th year). Study subject had to populate an on-line a questionnaire consisting of 45 questions divided into few parts addressing different aspects of sleep (sleep time, sleep deficit, average ratings which student got in last term, time of falling asleep, numbers and time sleep awakes, symptoms of OSA, dayly sleepiness). Next I've done statistics analysis consisting T-students test, ANOVA Kruskala-Walisa, Spearman correlation and Chi^2 tests.
RESULTS: The average sleep time on weekdays amounted to 6h 6 minÂą70 min, at weekends it increased to 8h 58min Âą70min; the sleep deficit accessed by students 2 h 2 minÂą78minutes per day. The problem with falling asleep reported 25.4 % of students with an average of 46Âą23 minutes falling asleep time and 2h 14 Âą80 minutes of sleep deficit; these times were longer when compared to students not reporting this problem in which falling asleep time was 13Âą8 minutes while the sleep deficit reached 1h 58 minÂą77min (p=0,03). Sleep time on weekdays reported by students having problems with falling asleep was on average shorter by 21Âą3minutes (p=0,00). 19,4 % of students having trouble sleeping confirmed taking sleep drugs at least once a week. 25,6 % of the students reported a problem with awakenings at night - on average twice a night and lasting approximately 17Âą25minutes (p=0,023). The sleep deficit and sleep time in this group did not differ form the whole group. 67,3 % of students having sleeping problems also reported a problem with the awakenings at night. We did not succeeded to find any association between variables of sleep disturbances and learning achievements. (as a revelator of scientists results we use average ratings) .
CONCLUSIONS: Sleep deficit is a serious problem occurring among students of medical faculty, although no impact on their

average grade was proven. Nethertheless, due to a higher incidence of sleep disorders in that group than in a general population, a further study of possible adverse effects of sleep deprivation is needed.
ADD:

Anxiety and health locus of control in patients with atrial fibrillation. Correlations of anxiety level and questionnaire data. Prospective study.

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INTRODUCTION: Atrial fibrillation (AF) is the most common supraventricular tachyarrhythmia with 1% prevalence within population, leading to numerous hospitalizations increased death risk and lower quality of life. Previous research revealed that patients with AF often have high anxiety levels.
PURPOSE: The aim of the study was to evaluate anxiety level and locus of health control in patients hospitalized because of AF and to compare them with self-reported socioeconomic and health questionnaire.
METHODS: 30 consecutive hospitalized patients (50% man, mean age 67) with AF were included in the study. Inclusion criteria were: 21? age ?79, hospitalization because of AF, exclusion criteria were: poor general condition, stroke or cardiac infarction in last 30 days, soldiers.
All patients filled up State Trait Anxiety Inventory (STAI), Multidimensional Health Locus of Control Scale (MHLC) and self reported socioeconomic and health questionnaire.
RESULTS: Mean STAI-state was 43,51 centile (c), very high (more than 90 c) had 17%; STAI-trait was 28.67 c, very high had 3%.
Statistically significant correlations were observed between: STAI-state and sex r=0.37, availability of General Practitioner (GP) r=0.41 care, number of GP visits r=-0.45, admission diastolic blood pressure r=-0.39, STAI-trait and general mood within last 3 months r=0.56, frequency of meetings with friends <1/month r=0.56, being in a relationship r=-0.43 or being widowed r=0.43, being retired r=0.41, income level more than 2000PLN r=-0.54, education level r=-0.49.
Mean Internal Health Locus of Control (IHLC) level was found to be slightly lower than median in chronic patients (25.7 vs. 25.78 respectively). External control - Powerful Others Health Locus of Control (PHLC) (28.53 vs. 22.54) and Chance Health Locus of Control (CHLC) (24.4 vs. 17.64) was way higher compared to chronic patients.
CONCLUSIONS: Patients hospitalized due to AF have mean state anxiety level similar and trait anxiety level lower to the chronic disease population. However among these patients substantial group presented high anxiety level. Numerous correlations found in our study would possibly allow constructing simple scale allowing for easy identification the AF patients with highest anxiety level.
IHLC level similar to other chronic patients suggests that AF patients might averagely keep to healthy diet and daily healthy activities. High levels of PHLC and CHLC suggest that AF patients better than other chronic patients comply to doctor's advice.
ADD: This paper is approved by Local Ethical Committee.

Camillo Golgi-man out of ordinary, double Nobel laureate?

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INTRODUCTION: The turn of the XIX and XX centuries is the time of great discoveries in the world of medicine, which were

crucial to the development of contemporary medicine.
PURPOSE: The aim of the study was to favour the unappreciated scientist.
METHODS: The analisis was performed thanks to available source materials in national libraries of University of Pavia and in house of Golgi, which is located in Corso Strada Nuova in Pavia. The topic is based on the historical-medical methodology (descriptive analysis, comparative, deductive).
RESULTS: Camillo Golgi, Italian physician and scientist (1843-1926) received the Nobel Prize in Physiology or Medicine in 1906 for his studies of the structure of the nervous system.
Several structures and phenomena in anatomy and physiology are named for him, including the Golgi apparatus, the Golgi tendon organ and the Golgi tendon reflex. Scientific activities of Golgi are connected with last year work of the Nobel Prize laureates- James Rothman, Randy Schekman, and Thomas Sudhof about their separate discoveries of the biological mechanisms that regulate the transportation of proteins in cells.
CONCLUSIONS: After more than 100 years the Nobel Prize it occurred to these scientists that couldn't reach their goal without achievements of Camillo Golgi. Their work is directly correlated with discoveries of Camillo Golgi.
ADD:

ABCG2 gene, its expression level and a potential association with gastric ulcer disease.

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INTRODUCTION: ABCG2 gene encodes BCRP, a protein belonging to the superfamily of ABC membrane transporters. These transporters use the ATP hydrolysis energy for the translocation of substances through the cell membrane, having significance in physiological conditions, such as protection against xenobiotics. BCRP is a 75 kDa â□□half transporterâ□□ and has one nucleotide-binding domain and one transmembrane domain, unlike typical membrane transporters. Its expression was detected in several normal tissues, such as small intestine, liver, placenta, and the blood-brain barrier. Substrates for BCRP include various drugs, chemotherapeutic agents, cytotoxic compounds and many other substances. Overexpression of ABCG2 gene may contribute to the occurrence of multidrug resistance and possible difficulties in the eradication of H. pylori infection.
PURPOSE: Evaluation of ABCG2 gene expression level in mucosa samples from patients with gastric ulcer disease. Searching for the dependence between the expression level and age, sex and severity of H. pylori infection.
METHODS: Material - gastric mucosal biopsies from patients suffering from peptic ulcer disease.
Source - St Faustina Kowalska Hospital in Leczyca
The severity of H. pylori infection was rated by rapid urease test.
Methods - RNA isolation, reverse transcription reaction in order to obtain cDNA, the PCR (Polymerase Chain Reaction) - qualitative assesment, agarose gel electrophoresis - to visualize the product, Real-Time PCR - quantitative assesment. Next statistical analysis of the results and the estimation of ABCG2 gene expression level.
RESULTS: So far 77 samples were taken into qualitative evaluation of expression. In the next stage quantitative evaluation will be performed by Real-Time PCR.
On the basis of the urease test results patients were divided into two groups: infected with H. pylori bacteria and those without the infection. The presence of Helicobacter pylori was detected in 26 patients, they were divided according to the severity of the infection.
CONCLUSIONS: It was revealed that ABCG2 gene expression is present in mucosal biopsies taken from patients with gastric ulcer. There is a suspicion that this phenomenon may be a factor responsible for the ineffective treatment.
ADD: This paper is approved by Local Ethical Committee.

Inhibition of Epidermal Growth Factor Receptor (EGFR) and Human Epidermal Growth Factor Receptor 2 (HER2) expression in Non Small Cell Lung Cancer (NSCLC). Evaluation of the therapeutic potential.

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INTRODUCTION: Lung cancer is one of the most common cancer wordwide. This disease is characterized by high mortality rate and bad prognosis. Erb-B family of receptor tyrosine kinases play important role in epithelial tissues development and in oncogenesis. Members of this family (EGFR, HER2) are identified oncoproteins.
PURPOSE: Evaluation, whether using plasmid pLKO.1-puro with anti-EGFR shRNA and anti-HER2 shRNA inserts in A549 cell line, makes possible to elicit phenotypic and functional changes leading to stronger immune response.
METHODS: Lung cancer cells were transfected with pLKO.1-puro plasmid which contained anti-EGFR shRNA and anti-HER2 shRNA inserts. Effectiveness of the transfection was evaluated by RT-PCR. Additionally, A549 cells were transfected with empty plasmid - as a control. Apoptosis rate was examined by annexin V and propidium iodide staining. The expression of CD80, CD86, CD83, FasL and TNF? receptors was evaluated by flow cytometry.
RESULTS: The inhibition of EGFR and HER2 expression in transfected cells (compared with cells transfected with control plasmid) led to increased frequency of apoptosis. Inhibition of EGFR expression carried on statisticaly significant increase of CD86 and CD120A expression. Inhibition of EGFR and HER2 expression led to increase of CD80 and CD83 expression, however they weren't statistically significant.
CONCLUSIONS: Increased expression of CD86 and CD120A might result in easier recognition of cancer cells by immune system and their stronger apoptosis. Our results suggest that inhibition expression of EGFR might be the promising direction of research in gene and immune therapy of Non Small Cell Lung Cancer.

ADD: This paper is approved by Local Ethical Committee.

Long term follow up of patients with minimal change disease and focal segmental glomerulosclerosis

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INTRODUCTION: The clinical presentation and outcome of minimal change disease (MCD) and focal segmental glomerulosclerosis (FSGS) are different and difficult to predict.
PURPOSE: Assessment of clinical features and outcome of patients with biopsy-proven MCD and FSGS in long term follow-up.
METHODS: We performed a retrospective, multicentre study of every patients from the region of Central Poland who underwent a kidney biopsy in years 2000-2011 (results of 1190 consecutive native kidney biopsies), from which MCD (n = 50) and FSGS (n = 84) were selected. Medical records with at least one year of follow-up were analysed.
RESULTS: Finally, we obtained full set of data from 19 patients with MCD: (K-2; M-17), mean age 43.3Âą15.7 years and from 50 with FSGS (K - 20; M - 30), mean age 47.7Âą16.4 years. Indications for kidney biopsy were: nephrotic syndrome in 89.5 % (n=17) of patients with MCD and in 46% (n=23) of patients with FSGS; nephritic syndrome in 5.25% (n=1) and in 22% (n=11) and sub-nephrotic proteinuria in 5.25% (n=1) and 32% (n=16), respectively. At the time of the biopsy 31.6% (n=6) of patients with MCD had eGFR ?90 ml/min, 36.8% (n=7) between 60 and 89 ml/min, and 31.6% (n=6) ?60 ml/min. 14% (n=7) patients with FSGS had eGFR ?90 ml/min, 24% (n=12) - 60 between 89 ml/min and 62% (n=31) ?60 ml/min. Mean follow-up was

68.1Âą34.1 and 65.2Âą37.3, respectively. During follow-up a complete remission was observed in 73.7%, (n=14) of patients with MCD, partial remission in 10.5% (n=2) and lack of remission in 10.5% (n=2), one patient died. In the second group a complete remission was achieved in 36% (n=18) of patients, partial remission in 21.1% (n=8) and lack of remission in 26% (n=13), end-stage renal disease (ESRD) was diagnosed in 20% (n=10) cases, one patient died (2%).
26.3% (n=5) of MCD patients had eGFR ?90 ml/min, 63.2% (n=12) between 60 and 90 ml/min and 5.3% (n=1) of them <60 ml/min in the follow up. None has developed ESRD. 16% (n=8) of FSGS patients had eGFR ?90 ml/min in, 24% (n=12) between 60 and 90 ml/min, and 36% (n=19) ?60 ml/min in. All patients who developed ESRD in FSGS had impaired renal function at the time of biopsy with mean eGFR 31.1Âą13.7 ml/min.

CONCLUSIONS: Patients with MCD have a good prognosis if the therapy is initiated. The diagnosis of FSGS is associated with higher risk of ESRD. The main risk factor of ESRD in FSGS patients is an impaired renal function at the time of diagnosis.
ADD:

The number and classes of antihypertensive medications recommended for patients to achieve the appropriate blood pressure control by general practitioners

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INTRODUCTION: Prevalence of arterial hypertension (HA) in the adult population of Poland reached 32% (10.5 million) in 2011, of which only 26% was effectively treated. Recent observations have indicated that in a large number of hypertensive patients on monotherapy blood pressure remained above target.
PURPOSE: The aim of the study was to assess the number and classes of antihypertensive medications used by general practitioners (GP) to achieve appropriate blood pressure control in their patients.
METHODS: Consecutive medical records of 249 patients (mean age 49Âą19 years) treated by three GP were analyzed. The information on the incidence of HA, demographic data of HA patients, the last 3 blood pressure values, use of antihypertensive, antiplatelet and lipid-lowering agents was collected. The prevalence of hypertension, number and class of antihypertensive agents were analyzed.
RESULTS: Incidence of HA in the studied population was 30.5% (n=76). Mean arterial pressure was 137Âą14/80Âą6 mmHg. Two antihypertensive drugs were used in 36% (n=27) patients, monotherapy in 33% (n=25), three drugs in 27% (n=18) and four drugs in 3% (n=2). ACEI with ĂŰ-adrenergic antagonists was the most often used combination of antihypertensive drugs (18%, n=14). ACEI with diuretic was prescribed to 16% (n=12). Angiotensin-converting enzyme inhibitors (ACEI) were the most popular blood pressure-lowering drugs (68%, n=52) followed by ĂŰ-adrenergic antagonists (53%, n=40) and diuretics (46%, n=35). Among diuretic-treated patients 39% received a thiazide. Calcium antagonists were used by 10.5% and angiotensin 2 receptor antagonists by only 3% patients. Target arterial pressure (<140/90 mmHg) was reached in 60.5% (n=46) patients. Patients with an appropriate control of HA used mostly ACEI (63%, n=29) and ĂŰ-adrenergic antagonists (59%, n=27). The patients who reached the target blood pressure were most often on monotherapy (37%) or dual therapy (28%). Patients who were above target mostly used dual therapy (43%). Diabetes was more often diagnosed in patients who were above therapeutic target (27%) than in those within target (9%).
CONCLUSIONS: Target blood pressure is not achieved in almost 40% of the patients in family medicine clinic and many of these patients are not prescribed the combination therapy recommended by recent guidelines. Comorbidities like diabetes still pose a challenge for the selection of an optimal antihypertensive therapy
ADD: This paper is approved by Local Ethical Committee.

Long term follow up of patients with lupus nephritis.

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INTRODUCTION: Lupus glomerulonephritis (LN) is a highly prevalent manifestations of systemic lupus erythematosus. LN may manifest as one of the six classes according to the classification revised in 2003 by the International Society of Nephrology (ISN) and the Renal Pathology Society (RPS). The classes III and IV are active proliferative lupus nephritis with unfavourable outcome.
PURPOSE: Assessment of the clinical features and outcome of patients with biopsy-verified LN.
METHODS: Clinical records and renal biopsies from 5 centers of the Lodz Region conducted in years 2000-2011 were reviewed. Data from patient's medical history records were analysed with at least one year of follow-up.
RESULTS: A total of 71 patients diagnosed with LN were identified for the study (I class - 2 patients, II class - 5, III - 1, IV - 57, V - 5, VI - 1), but 42 patients were lost to view and finally follow-up of 29 subjects with IV class of LN were analysed. The patients mean age at the day of biopsy were 37.4Âą12.4 years (K-23; M-6). Indications for biopsy were: nephrotic syndrome in 13 patients, sub-nephrotic proteinuria - in 9, nephritic syndrome in 7 subjects. At the time of the biopsy 3 patients were in stage I Chronic Kidney Disease (CKD), 7 in stage II, 13 in stage III and 6 in stage IV. Mean follow-up was 88 Âą 38 month. All patients were treated with immunosuppressives. In the follow-up end-stage renal disease (ESRD) occurred in 4 cases, one patient died. A complete remission was achieved in 9 (31%) cases (proteinuria <0,5g/per 24 hours without microhematuria), partial remission in 8 (28%) and the lack of remission was observed in 7 (24%) patients (proteinuria > 1g/24 hours with microhematuria). After the follow up period 9 patients were in stage I, 9 in stage II, 3 in stage III and 3 in stage IV. Impaired renal function at the time of biopsy was the main poor prognostic factor in LN patients (mean baseline estimated glomerular filtration rate in patients who developed ESRD and one who died in follow up was 22 ml/min).
CONCLUSIONS: The diagnosis of IV class of LN is associated with high risk for developing ESRD. Nephrotic syndrome is the most frequent clinical symptom of LN. Impaired renal function at the time of diagnosis is poor prognostic factor in LN.
ADD:

Antiphospholipid antibodies as a prognostic factor of pregnancy failure in Antiphospholipid Syndrome.

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INTRODUCTION: Antiphospholipid syndrome (APS) is defined as arterial and/or venous thrombosis and pregnancy failure in the presence of antiphospholipid antibodies (aPL).

PURPOSE: To assess the type and level of aPL antibodies such as anticardiolipin (aCL), anti-Ă□2 glycoprotein I antibodies (anti-Ă□2GPI) and lupus anticoagulant (LA) as prognostic factors of pregnancy outcome.
METHODS: A case-control study was performed in a group of 48 women with APS. Twenty two had uncomplicated and twenty six had complicated pregnancies. The obstetric complications were defined as: miscarriage, intrauterine fetal death and preterm birth of child without abnormalities. The type and level of aPL antibodies were measured in both groups. During the pregnancy the patients were treated with low molecular weight heparin (LMWH). All cases were drawn from the Department of Medicine hospital database. For statistical analysis ANOVA, chi-squared test or logistic regression analysis were used where appropriate.
RESULTS: We did not observe any differences in antibodies levels (aCL and Ă□2-GPI) between groups of patients with successful pregnancy and with obstetric complications ($p<0,05$). Additionally, we tested the impact of aPL level on pregnancy fetal outcome by logistic regression analysis but we did not observe any difference. Furthermore, the frequency of venous/arterial thrombotic events in both groups was similar ($p>0,05$). Although, statistical test revealed no significant

difference, the average level of antibodies in the group with pregnancy complications compared to the group without the complications was noticeably higher: aCL IgM 43,63 vs. 37,65; aCL IgG 56,09 vs. 52,46; Ă□2GPI IgM 37,74 vs. 28,50; Ă□2GPI IgG 26,63 vs. 5,99; LA 38,71 vs. 61,29.
CONCLUSIONS: : Similar level and type of aPL antibodies in both groups might be due to confounding factors such as: selection bias (database from the reference center) and the limited numbers of patients as a result of low prevalence of APS. Moreover, the assessment of other types of antibodies such as antiphospha-tidylserine/prothrombin antibodies (aPS/PT) might be valuable in future studies.
ADD: This paper is approved by Local Ethical Committee.

Myocardial injury after endovascular treatment in patients with critical lower limbs ischemia.

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INTRODUCTION: The last researches disclosed a problem of myocardial injury after noncardiac surgery (MINS) defined as a myocardial injury caused by ischemia in the course of 30 days after surgeries different from cardiac surgeries. The following research presents that myocardial injury can also occur after noncardiac percutaneous transluminal angioplasty procedure (PTA).
PURPOSE: This study is supposed to verify the myocardial injury after noncardiac endovascular procedures and its impact for prognosis after PTA.
METHODS: Patients over 45 years with diagnosed critical lower limbs ischemia (classified as 4, 5 or 6 in the Rutherford Scale) admitted to the Angiology Dept. for endovascular treatment were enrolled in the study. In the group of recruited patients 49,6% suffered from coronary artery disease, 76,9% hypertension and 59,5% diabetes mellitus. Before the treatment Natriuretic Peptide NT-proBNP was measured. After PTA blood samples were taken two times: firstly 6-12 hours and secondly 1 day after the procedure. Each time the level of High Sensitive Serum Troponin (hsTnT) was measured. The results of the revascularization were evaluated using the ankle-brachial index (ABI), toe-brachial index (TBI) and the assessment of restenosis. All of patients were observed in 30-day follow-up. Basing on the definition of MINS a similar one for myocardial injury after noncardiac PTA (MINS-PTA) was formed. It is diagnosed in case of postoperative hsTnT elevation over 0,014 if preoperative sample was negative or when there is observed an increase of postoperative hsTnT by 50% if preoperative hsTnT was above 0.014.
RESULTS: 121 patients (45 women and 66 men) were recruited. The average age was 71,49Âą10,47. Elevation of preoperative hsTnT (>0,014) was observed in 91 patients (75,2%). 17 of them (14%) had hsTnT over 0,04, 8 (6,7%) developed MINS-PTA. The average maximal hsTnT was 0,047Âą0,097. In this group in 3 patients (2,5% of all enrolled and 37,5% of MINS-PTA) the diagnosis of myocardial infarction was established.
CONCLUSIONS: The following research presents that myocardial injury is observed in 6,7% patients who underwent noncardiac PTA. It is planned to continue observations to evaluate the impact of the perioperative cardiac ischemia for further postoperative prognosis. Also patients with initially elevated hsTnT before PTA will be carefully observed in order to verify the importance of this factor for long-term condition.
ADD: This paper is approved by Local Ethical Committee.

Analysis of clinical and pathological factors in patients with breast cancer.

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INTRODUCTION: Breast cancer is one of the most common cancer in women. Breast cancer incidence rates increase sharply with age, becoming significant before the age of 50. Axillary lymph node metastasis presence or absence is an important factor for therapeutic strategy. The status of the sentinel lymph node (SLN) shows the metastasis status in the axillary lymph nodes. Other important prognosis factors of recurrence and progression are: tumor size, tumor grading, progesterone (PR), estrogen (ER) and HER-2 receptors status.
PURPOSE: The aim of study was a retrospective analysis of the clinical and pathological factors in 50 patients operated in the Department of Surgical Oncology, Medical University of ŁĂłdŹę, comparison between these factors and patients with presence and absence of metastases in sentinel lymph nodes after biopsy and correlations with metastases in sentinel lymph node.
METHODS: Fifty (50) patients with diagnosed breast cancer were enrolled to the retrospective study. The following factors were analyzed: location of cancer, age, weight, body-mass index, diameter of tumor, receptors such as ER, PR, HER2, histological type of cancer, grading, presence or absence of metastases in sentinel lymph nodes.
RESULTS: The median age of patients - 60 years (range: 38-85); median period of observation - 21 months 26 days (range: 0,75 - 49 months). The mean diameter of tumor was 2,1 cm (range: 0,7 - 5). Sentinel lymph node biopsy was performed in all cases - 14 patients (28,0%) with metastasis in SLN, 36 patients (72,0%) without metastasis in SLN. Types of cancer: 43 (86%) invasive ductal carcinoma (IDC), 4 (8%) invasive lobular carcinoma, 1 (2%) papillary carcinoma, 1 (2%) mucinous carcinoma, 1 (2%) was undefined. Frequency of each grade: G1 in 6 cases (12%), G2 in 18 cases (36%), G3 in 20 cases (40%) and in 6 cases (12%) was undefined. The most common location was upper exterior quadrant of breast - 24 cases (48%). The negative, statistically significant correlation between grading level and presence of PR and ER receptors was detected (r=0,458 ; p=0,002 and r=0,412 ; p=0,006). The influence of PR's presence on metastases in SLN was detected (?2(1)=4,250; p=0,039).
CONCLUSIONS: Sentinel lymph node biopsy was performed nearly in each case, less than a half patients had metastases in SLN. The most common type of carcinoma was IDC. The higher is grading level, the less is presence of PR and ER receptors. Metastases in SLN were significantly more frequent in patients with presence of PR.
ADD:

The Diabetic Platelets - Big, Bad and Dangerous

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INTRODUCTION: Our previous study showed that children with type 1 diabetes mellitus (T1DM) have higher mean platelet volume (MPV) than healthy peers. As MPV was associated in other studies with platelet activity we hypothesized that children with T1DM may have increased platelet activity which will be further increased by poor metabolic control.
PURPOSE: To assess if platelet activity is associated with metabolic control of T1DM in children.
METHODS: Children treated in our Department (N=652) were screened for MPV and HbA1c level. Patients with the highest and the lowest MPV values (lowest and highest quintile) were selected to the following study. A similar division was performed on the basis of HbA1c levels. This produced four separate groups of highest/lowest-HbA1C/MPV which constituted our study group. During follow-up visits blood samples of at least 800ÂľL volume were collected. Measurements of platelet activity were performed with the INNOVANCE PFA-200 System (Siemens, Germany) with Collagen/Epinephrine (CEPI), Collagen/ADP (CADP) and P2Y receptor cartridges. These agonists induce platelet adhesion, activation and aggregation leading to rapid occlusion of the cartridge's aperture followed by cessation of blood flow called the closure time (CT).
RESULTS: The study group was composed of 21 children (47.62% boys) with mean age of 12.78+/-3.96 years and mean diabetes duration of 5.13+/-2.96 years. One patient was excluded from further analysis because of abnormally short CEPI CT (69 sec. (seconds) [normal range 78-199 sec.]).
P2Y CT was significantly shorter among boys (82,89+/-9,85 sec. vs 71.22+/-8.29sec., p=0.0155). No other significant association between platelet activity parameter (CEPI CT or CADP CT) and sex or age of the patients were found (all p >0.2).

Our study showed a correlation with borderline significance between MPV and: CEPI CT (R=0.41, p=0.0764), CADP CT (R=0.43, p=0.0618) but not with P2Y CT (R=0.04, p=0.8720). Higher platelet count resulted in shorter CT with CADP (R= -0.66, p=0.0014) but not with CEPI (R= -0.37, p=0.1130) or with P2Y CT (R= -0.17, p=0.5002). After adjustment for covariates (age, diabetes duration, mean PLT, mean MPV, body weight and height) CADP CT was significantly associated with mean HbA1c percentage (partial correlation coefficient (B)= -7.33, p=0.0306).
CONCLUSIONS: In children with T1DM closure times measured by PFA-200 were associated with male sex, PLT and MPV. High HbA1c levels may also shortened closure times, which confirms that poor glycemic control contributes towards increased platelet activity.
ADD:

Dermathological autoimmunologically based diseases - the diagnostic methods analysis.

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INTRODUCTION: Diagnostic process towards autoummunologically based diseases such as connective tissue diseases or blister diseases requires immunological tests to demonstrate the presence of immunoglobulin or complement concrements in epidermis and circulatory auto-antibodies in serum. These tests are necessary to make the right diagnosis because clinical symptoms and histopathological tissue examination do not provide a doctor with enough information to successively diversify diseases mentioned above and start appropriate treatment.
PURPOSE: The purpose of this study is to analyse the diagnostic methods for identifying dermathological autoummunologically based diseases. The study was based on the results obtained from patients at the Dermatology and Venereology clinic of the Medical University of Ĺ□ĂłdĹş.
METHODS: The retrospective analysis included the results of immunological examinations which were conducted between 2008 and 2013 in order to diagnose autoimmune diseases at the Dermatology and Venereology clinic of the Medical University of Ĺ□ĂłdĹş for adults and children. Assessed parametres included, among other, sex and age of the patient, the part of the body from which the section for examination was extracted, the type of marked immunoglobulins and the type of immunofluorescence.
Immunological examinations included methods known as DIF - direct immunofluorescence and IIF-indirect immunofluorescence.

RESULTS: Preliminary results analysis indicates that the majority of patients diagnosed for autoimmune diseases were women (80.16%). The average age of adults was 57, and children constituted 8% of all patients. Sections were most often taken from wrist skin (43.13 % of adult 97.76% of children patients).
CONCLUSIONS: Dermatological diseases that are primarily based on immunological disfunctions are much more prominent among women than men. They include: blistering skin disesases and systemic connective tissue diseases. They can affect patients of all ages, including children. Their pathological background still remains unknown, thus histopathological examinations of skin sections that use immunohistochemical methods constitute the basic tool for diagnosis of such disorders and are getting more and more popular.
ADD:

Prosthesis - in the present and in the past. The role it has been playing in people's life.

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INTRODUCTION: Prosthesis. In this day and age it is difficult to imagine a life without them. Whether it's the relatively simple prosthesis, such as a dental prosthesis or those more complex, and highly developed such as cochlear implant, they are all vitally important and play a major role in lives of people who use them.
This such useful invention did not appear today. The oldest found prosthesis - thumb prosthesis was made from wood and leather and originated from an ancient Egypt around 3000 r. p.n.e.
We can however presume that an attempt on the production of prosthesis was made even earlier.

PURPOSE: The purpose for this paper is to present the historical process of development and improvement of prosthesis and the progress of selection of the materials which they are made from- today called biomaterials. It is also essential to realise the meaning prosthesis have to people, taking into account social, economical and psychological aspects.
METHODS: Descriptive, analytical, synthetic and comparative.
RESULTS: Prosthesis have changed greatly over the centuries. There has been changed in the structure and in the materials they were made from. As a result of those changes prosthesis have acquired many new functions, thanks to which it is now possible not only to use them for visual benefit but even for functional and complex tasks.
CONCLUSIONS: The knowledge about the use of prosthesis over the centuries allows us to understand better the importance they have for those who need them. It also educates us that crippleness has been existing as long as human beings and that even centuries ago people were trying to resolve the problems that it brought upon them. This knowledge lets us understand how vital is the investment and work on the newer technologies.
ADD:

Evaluation of prognostic factors for survival in patients treated with stereotactic radiosurgery

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INTRODUCTION: Brain metastases are the most common intracranial neoplasms in adults. Treatment of metastatic brain tumors is one of the major challenges in neurooncology. Apart from neurological surgery, whole brain radiotherapy (WBRT) and chemotherapy, one of the most promising treatment modality for newly diagnosed patients has emerged stereotactic radiosurgery (SRS).
PURPOSE: The goal of this study was to assess potential prognostic factors that may guide treatment selection, as well as evaluate their impact on disease-free and overall survival.
METHODS: Fifty-four patients with seventy-eight brain metastases who received SRS from March 2006 to December 2009 were enrolled in the study. The disease-free (DFS) and overall survival (OS) were determined. The influence of age, histological tumor type, radiation dose, extracranial disease, WBRT as well as salvage chemotherapy after SRS, Karnofsky Performance Scale Index (KPS), planning target volume (PTV) and the number of irradiated brain metastases were analyzed using the Kaplan-Meier method. The univariate and multivariate analyses were performed, with p value of < 0.05 considered significant.
RESULTS: The mean DFS was 4.41 months and the mean OS was 6.17 months. Active extracranial disease was associated with decreased OS (4,26 months) compared to 8.31 months in group of patients with nonactive disease ($p < 0.0001$). KPS was significantly correlated to survival at multivariate analysis ($p < 0.007$), The value of planning target volume (PTV), as well as the number of irradiated brain metastases were also associated with increased OS ($p=0.002$ and $p=0.007$ respectively). The

age, histopathological tumor type, radiation dose, the whole brain radiotherapy as well as salvage chemotherapy after SRS did not have any impact on DFS and OS ($p > 0.5$).
CONCLUSIONS: Stereotactic radiosurgery of brain metastases is an important therapeutic option. Extracranial disease status, KPS, number of irradiated brain metastases and PTV are reliable tools of prognostic determination for patients with brain metastases treated with radiosurgery. They allow for the identification of people who may benefit from SRS. The systematic use of prognostic factors prior to the intervention may help us to determine the most appropiate treatment for each clinical situation. Separating patients into unified classes will allow proper research and evaluation of new treatments.
ADD:

To the eye of the artist, that is to follow a scent of Down syndrome in selected iconographic sources since 2nd BC to 18th AD. From norm to pathology?

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INTRODUCTION: Down syndrome- this is disease discovered and described in 1866 by John Langdon Down, which is caused by the abnormal presence of a third copy of chromosome 21. But the discovery of this disease doesn't mean that it didn't appear formerly.
PURPOSE: The main aim of our study is to answer the question- which phenotypic features characteristic for Down syndrome can be found in the works of art? Moreover, is it, using our knowledge of history, possible to answer the question: how in past was the people with Down syndrome treated and will this knowledge help us today to get another look to people who suffer from this disorder?
METHODS: The typical methods of historical and medical research were used. In gathered iconographic sources - Omlec's sculpture, medieval painting, fifteenth-century paintings by Andrea Mantegna and Filippo Lippi, anonymous painting from 16th century, Jacob Jordaens' paintings from 17th century and eighteenth-century paintings by Sir Joshua Reynolds - the characteristic features of Down syndrome were being found.
RESULTS: Down syndrome is characterized by very specific, simple to recognize phenotypic presentation. People who suffer from this disease can be identified by following physical characteristics: flat facial features, flattened nose, upward slant to the eyes or small skin folds on the inner corner of the eyes which separate them from the rest of the society. According to the source research, in the past this people were often shown as personage in religious painting. These people, till the described of Down syndrome by John Down, were not socially stigmatized.
CONCLUSIONS: Is it thus justly, that today in the times of general tolerance, respect for other person and proclaimed humaneness- we treat people with Down syndrome worse than our ancestors?
ADD:

The effect of TNFalpha inhibitors on the health - related quality of life in patients with Crohn's disease.

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INTRODUCTION: Crohn's disease (CD) is an inflammatory bowel disease characterized by a chronic course and an unknown

etiology. Many studies have proved that CD strongly affects a psychological and sociological condition of patients and significantly reduces their quality of life. Among pharmacological agents used to reduce symptoms of exacerbated CD there are TNFalpha - inhibitors available such as: infliximab and adalimumab, which are proved to be highly effective in the treatment of this disease. Nevertheless their usage can develop some side effects.
PURPOSE: The aim of this study was to evaluate the effect of TNFalpha inhibitors on the health - related quality of life in patients with CD.
METHODS: In this study 22 patients (13 women and 9 men, in age of 21 to 37), treated with TNFalpha inhibitors in years 2013- 2014 at the Department of Gastroenterology, Medical University of Lodz were enrolled. They were asked to fill in the questionnaire referring to their quality of life. The questionnaire has been created to evaluate psychical and sociological factors connected to the course of Crohn's disease. The questionnaire questions were divided into groups that evaluated such factors as: physical symptoms of disease, psychical status, sociological factors connected with disease, and apprehensions connected with disease. The questionnaire has been prepared for the purpose to conduct this study.
RESULTS: In all groups of factors, the patients treated with TNFalpha inhibitors reported improvement. The highest improvement was noticed in the group of questions referring to physical symptoms of disease (questions 16-22). Statistically significant was also the improvement in the group of questions about psychical status of patients (23 - 30) and most of questions concerning sociological factors connected with the disease (31 - 37), and apprehensions connected with CD.
CONCLUSIONS: It can be concluded that biological treatment with TNFalpha inhibitors can not only reduce physical symptoms of Crohn's disease but it can also decrease an anxiety connected with living in a society, improve psychical status or reduce apprehension about the future, education and family. Therefore the more common access to biological therapy with TNFalpha inhibitors in Poland should be postulated, especially for young people.
ADD:

The incidence of neurological complications in Systemic lupus erythematosus and the influence of antiphospholipid syndrome on their course.

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INTRODUCTION: Systemic lupus erythematosus (SLE) is a multiple organ disease caused by autoimmune process which can damage nervous system.
PURPOSE: To assess the frequency of neurological complications in patients with SLE or primary antyphospholipid syndrome (PAPS) and secondary antyphospholipid syndrome (SAPS). Secondly, to determine if the coexistence of APS influences the manifestation of neurological complications in SLE . Moreover, to determine the connection between SLE onset and amount of neurological complications.

METHODS: A retrospective study was performed in a group of 255 patients with SLE and/or APS, neuropsychiatric complications had 128 of them. They were divided into three groups: 1) SLE (55 patients) 2) APS (39) 3) SLE and APS (34). Neuropsychiatric events were classified using the American College of Rheumatology case definition to central and peripheral symptoms.
RESULTS: Thirty nine percent of patients have developed NPSLE, 88% of symptoms were related to central nervous syndrome (CNS). Headache (38,5%) and mood disorder (28,2%) were prevailing symptoms. Movement disorders, aseptic meningitis, convulsions, acute confusion , cognitive disorders and cerebrovascular complications were rarely observed. Polyneuropathy was the most frequent (58,3%) among peripheral complications. Mononeuropathy and cranial neuropathy were rarely observed. In the APS group cerebrovascular complications were significantly more frequent ($p<0,01$) than in the SLE group. Neurological complications showed up later in the group with SLE than in PAPS (median time interval between SLE or PAPS diagnosis and neurological manifestations were 5,93 and 1,38, respectively). The cerebrovascular complications were diagnosed in 48,5% of PAPS patients, (50% of subjects had ischemic stroke and 38% brain lesions of vascular origin revealed

in CT scan or MRI in the comparison of the group of SLE patients with the group of SAPS patients revealed a statistically significant difference in cerebrovascular events frequency (p<0,01). The risk of cerebrovascular events among SLE patients was over 10 times lower than among PAPS patients (OR: 0,1 95% CI: 0,04-0,26, respectively). However, the risk of other non-vascular neurological complications was significantly higher in the SLE group (OR: 8,67 95% CI: 2,27-33,12, respectively).
CONCLUSIONS: In the NPSLE CNS complications were 7,5-fold more frequent than peripheral complications. Non-vascular neurological complications of SLE were more frequent in the group without APS. Neurological complications are completely different in the group with SLE (headache and mood disorder) than in a patients with APS (stroke).
ADD: This paper is approved by Local Ethical Committee.

Expression of interleukin-27 (IL-27) in mononuclear cells after exposition to lung cancer cells.

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INTRODUCTION: IL-27 is responsible for the Th1 immune polarization and also cytotoxic response. It is secreted by antigen presenting cells (APC). The expression of IL-27 in peripheral blood mononuclear cells (PBMCs) might be a non-specific response against tumor target cells.
PURPOSE: Examination of IL-27 expression by exposing PBMCs to lung cancer cells (human non-small cell lung cancer line - A549).
METHODS: Mononuclear cells were isolated from peripheral blood of 7 healthy volunteers and co-cultured with lung cancer cells. PBMCs were divided into a) transfected cells with plasmid pXMs-IL27; b) transfected cells with control plasmid pXMs-IG; c) non-transfected cells. It was performed to examine a cytokine expression (IL-27) by direct immunofluorescence and analyzed by flow cytometry.
RESULTS: IL-27 significant expression was found in PBMC after exposition to lung cancer cells. Its measurement was remarkably higher in co-cultured non-transfected experiments than in control mononuclear cells. Levels of the cytokine were also increased in co-cultured cells transfected with pXMs-IL27 than pXMs-IG.
CONCLUSIONS: Analyze of mononuclear cells exposing to lung cancer cells showed expression of interleukin-27. It could be a first line mechanism of non-specific immune response. First contact with the tumor antigen might possibly resulted in secreting IL-27 - the cytokine that regulates inflammatory reactions and presents antigen. Despite no literature of simillar results, it needs further explanation.
ADD: This paper is approved by Local Ethical Committee.

Dry snuff in Poland - the scale of the phenomenon and its impact on human health. Population-based study in Polish Internet users.

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INTRODUCTION: In Poland snuff-taking is becoming more and more popular, especially among young people. However, consequences of its abuse are unknown, there are almost no data about effects of this tobacco product on human health. Our study is the first attempt in Poland to evaluate health risks connected with snuff consumption.
PURPOSE: Evaluation of snuff consumption in Poland - its scale and health implications.
METHODS: We created a questionnaire about various aspects of snuff consumption that was circulated on the Internet,

especially on the most popular social networks in Poland.
RESULTS: 1,236 people took part in our survey (68% males, 32% females, mean age 26 Âą 6.8). 81% had contact with snuff, and 37% of them are regularly consuming it. Snuff is mainly used by young men (84%). The first contact with the snuff occurs between the ages of 13-16 (43%) and 17-19 (35%) years, during meetings with friends (43%) and in educational institutions (28%). Average monthly consumption of snuff was 10 Âą 46.96 (median Âą SEM) grams and was accompanied by consumption of alcohol (28%) and other tobacco products (15%, cigarettes alone: 8%). The main complications of snuff usage include: dryness of the nasal mucosa, dizziness, chronic rhinitis (16, 12, 8% respectively). There was no correlation between the snuff consumption and cancer or respiratory and cardiovascular diseases. 60% of respondents had used snuff as a medicine for rhinitis, and 29% of them are still doing it. 37% of people admit to overdose the nicotine while taking snuff, in 14% of cases it happens frequently. In addition, most of respondents believe that snuff is relatively harmless to health.
CONCLUSIONS: Consumption of snuff in Poland is higher than previously thought. Snuff may be the first step towards other risky behaviours, therefore it should be included in addiction prevention programs in schools. Questions about snuff consumption should be also part of medical interview. Because of low average age of the studied population influence of snuff consumption in development of cancers, respiratory and cardiovascular diseases cannot be excluded. It is necessary to conduct wider studies on larger and more diverse populations. We should also educate people about health consequences of snuff usage.
ADD: This paper is approved by Local Ethical Committee.

Effect of Lipid Modulator Genes Does not Differ Between Monogenic and Autoimmune Diabetes in Children

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INTRODUCTION: GCK-MODY is one of the most common pediatric monogenic diabetes which is associated with mutations in the glucokinase (GCK) gene. Mutations in GCK correspond with altered blood glucose and lipid concentrations. Genes that encode proteins which interact with glucokinase are: glucose-6-phospatase catalytic subunit-2 (G6PC2) and glucokinase regulator (GCKR).
PURPOSE: Our aim was to assess the effects on HbA1c and serum lipid levels of single nucleotide polymorphisms (SNPs) in two genes G6PC2 and GCKR.
METHODS: The study group included 129 children with GCK-MODY from the Polish Registry of Monogenic Diabetes and 395 with type 1 diabetes (T1DM), in whom we genotyped two SNPs in G6PC2 (rs560887) and GCKR (rs1260326). Lipid concentrations were assessed in fasting serum samples.
RESULTS: Total and HDL cholesterol concentrations were significantly lower in the GCK-MODY group than in patients with T1DM (167.5+32.5mg/dl vs 174.4+31.1mg/dl, p=0.0435 and 48.42+14.3mg/dl vs 58.7+12.7mg/dl, p<0.0001, respectively). No differences in genotype distributions were found except for underrepresentation of GCKR TT homozygotes among GCK-MODY patients (10.9% in GCK-MODY vs 17.7% in T1DM, p=0.0651). GCKR genotypes showed significant associations with lipid profiles and HbA1c levels, whereas no such associations were noted for G6PC2. After adjustment for confounders, TT homozygotes were shown to have higher total cholesterol and marginally higher LDL cholesterol and triglyceride levels (p=0.0245, p=0.0657 and p=0.0550, respectively). The difference between TT homozygotes and other genotypes was similar in magnitude within the GCK-MODY and T1DM groups. No significant interactions between the type of diabetes and the GCKR or G6PC2 genotype were detected.
CONCLUSIONS: Individuals who are homozygous TT at rs1260326 of the GCKR gene have higher triglyceride, total and LDL cholesterol levels regardless of the presence of GCK mutations.
ADD: This paper is approved by Local Ethical Committee.

The reasons of the lack of vaccination against influenza among patients from Pabianice

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INTRODUCTION: Influenza is a serious infectious disease of the respiratory tract, which may lead to a variety of complications. Influenza incidence indicates seasonality, with a peak in the winter months e.g.: IX-XII'2012 - 32% cases in 2012r, I-II'2013 - 39,92% cases in 2013r. WHO recommends flu vaccinations especially in high-risk groups of patients. 3,7% of the population benefited from the vaccination during 2012/2013 season. The vast majority of inoculated patients were between 15 and 64 years old (50% in 2011 and 47,36% in 2012) and over 65 years old (2011 - 42,97%, 2012 - 46,37%).
PURPOSE: The aim of the work was to determine whether patients vaccinate or not, the reason for it and their general knowledge about viral infections of the respiratory tract.

METHODS: The study was conducted on a randomly selected group of 100 patients presenting to a GP in Pabianice, Ł□Ăłdzkie. The average patients' age was 42,98 years â□Ą14,05, with 59% women and 41% men. The study was approved by the Ethics Committee of the Medical University in Lodz, number RNN/141/13/KB.
RESULTS: 44% of respondents vaccinate, whereas merely a 13% do it every year. The main reason for inoculation was to prevent flu infection. 14% of survyed patients took advantage of free vaccination at workplace. 30% of vaccinations took place at the GP office, while nobody inoculated themselves at home. Disadvantages of the flu vaccinations include: the price of the vaccination, lack of confidence that they are effective, insufficient knowledge about flu prevention. A mere number of 38,6% responders were informed about flu vaccinations from the media. More and more often, doctors are the ones who encourage patients to inoculate themselves. 70,5% of responders found out about the possibility of vaccination from their GP. 64% of the patients are aware of the serious complications influenza may lead to. Patients tend to recommend flu vaccinations to elderly people above 65 years old (66%), to children under 2 years old (12%) and to pregnant women (only 6%).
CONCLUSIONS: 1. An informative social campaign and free of charge vaccinations especially for the high-risk patients may reduce the number of influenza cases.
2. Improving patients' knowledge about flu and the vaccination itself may improve people awareness and encourage them to inoculate every year.

ADD: This paper is approved by Local Ethical Committee.

Correlation between anti-thyroid peroxidase antibodies levels and final histopathology examination in patients with thyroid gland disorders.

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INTRODUCTION: The level of anti-thyroid peroxidase antibodies (aTPO) is one of the criteria of Hashimoto's thyroiditis (HT). aTPO level above 500 U/mL is considered to be a certain sign of HT. The presence of aTPO is positively correlated with Hashimoto's thyroiditis. The most common clinical sign of HT is hypothyroidism.
Even in the absence of hypothyroid symptoms, the presence of aTPO antibodies would indicate underlying lymphocytes infiltration of gland and be an indicator of autoimmune disease.
Histologic signs of HT are: lymphoplasmatic infiltration, lymphoplasia, stromal fibrosis, hyalinisation, follicular cell degeneration, micro-follicles, giant-cell/histiocyte infiltration.

PURPOSE: The aim of the study was to evaluate the correlation between aTPO level results and final histopathology in patients with thyroid gland disorders.
METHODS: We analysed prospectively data from 139 patients: 119(85.6%) women and 20(14.4%) men with thyroid gland disorders who underwent total thyroidectomy from May 2013 to February 2014 at the Department of General and Oncological Surgery at the Medical University in Lodz. All of them underwent total thyreoidectomy. We took into consideration pre-operatively measured aTPO levels and postoperative pathologic results.
RESULTS: Following, final histologic results were obtained: non- toxic goiter (NTG) 81(58.3%) patients, toxic goiter (TG) 34(24.5%) patients, 13(9.3%) thyroid cancer (TC) patients and 11(7.9%) patients with certain diagnosis of HT (confirmed by aTPO level >500 and histologic diagnosis). All four groups did not differ significantly with respect to gender (p= 0.75, Chi-square test) or age (p=0.14 Kruskal-Wallis test).
Histologic features of HT were observed in 44(31.7%) patients. As mentioned above, 11(25%) of them had aTPO levels above 500 U/mL. The diagnosis of the rest of these patients were as follows: NTG 28(63.6%), TG 3(6.8%), TC 2(4.5%).

aTPO levels analysis
Generally, 25 (18%) had aTPO level above 500U/mL. 14 (56%) were without any histologic signs of inflammation. 8(32%) of them were recognized TG, 6(24%) NTG.
The distribution of aTPO level values was not normal. There were no significant differences among all groups of patients (p=0.35).
In HT group median of aTPO level value (Me) was 114.91 , the first quartile of aTPO level value (aTPO - Q25) was 1.90, the third quartile of aTPO level value (aTPO - Q75) was 307.69.
In NTG group Me was 60.88, aTPO - Q25 was 10.66, aTPO - Q75 was 177.62.
In TG group Me was 124.81, aTPO - Q25 was 21.68, aTPO - Q75 was 1444.35.
In TC group Me was 80.23, aTPO - Q25 was 38.11, aTPO - Q75 was 89.20.
In all study group Me was 80.23, aTPO - Q25 was 12.24, aTPO - Q75 was 307.69.
Hashimoto features in histopathology without an increase of TPO level above 500 U/mL was observed significantly more than reverse situation (p=0.0037 Chi2 McNemary test).
It was especially noticed in the NTG group of patients (p=0.002).
In turn, more false positive results of aTPO levels were observed in theTG group of the patients but these results were statistically insignificant (p=0.14).

CONCLUSIONS: Conclusions
1. HT is rather common disease among operated patients with thyroid disorders.
2. There is a significant discrepancy between HT diagnosis in histopathology and aTPO levels, especially in NTG patients.

ADD:

Symptoms suggesting cardiovascular system disorders and qualification for sport participation in ultramarathon runners.

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INTRODUCTION: In 2013 in Poland, 15ultratrails at the distance from 45 to 220km took place, , with 90 to 570 people participating in each event. The European guidelines recommend an interview, physical examination and ECG as a part of preparticipation screening for professional athletes. Amateur runners, despite being exposed to extreme exertion, are not subject of obligatory examination.
PURPOSE: The aim of this study was to gain information on commonness of medical consultations and symptoms, which

indicate legitimacy of medical advise before deciding about extreme run.
METHODS: This study enrolled 105 competitors of mountain ultramarathon at the distance of 80 km. Questionnaire including data on symptoms that may suggest necessity of medical counseling, and frequency of such counseling in the period before participating in the competition was evaluated. Furthermore ,physical examination was performed on the start of the run day.
RESULTS: The data were analyzed among 105 amateurs (12F,93M) aged 18-64 (av.36Âą10). The most of examined people have been going in for long distance runs for many yrs (1-30yrs,median 5yrs) and has run in marathons and ultramarathons up to 210km (25 people above 100km). In the examined group 4 people reported hypertension;. Thirty subjects reported symptoms suggestive of cardiovascular system diseases: 11 had a history of palpitations, 8-fainting, 10-chest pain, 6-dyspnoea. Family history for CVS diseases was positive in 44 people. 79 athletes from the examined group have had ever an ECG, 4 of them had abnormal ECG (WPW, bradycardia, block). Only 8 runners have consulted their start in the run with a GP. Among the athletes with â□□abnormalâ□□ ECG GP's did not see any contraindications. Resting HR before the run ranged between 43-100/min(avg67Âąxx). Merely in 4 subjects HR was below 50/min. The avg. BP taken before start was 142Âą13/88Âą12 mmHg.
CONCLUSIONS: Although 28% of competitors of the ultramarathon reported symptoms suggesting cardiovascular system disorders, only 8 of them consulted participation in marathons with a doctor. Considering popularity of extreme exertions undertaken by amateurs, the obtained data indicates the need of popularization information on indications for medical consultation among people who amateurish go in for long distance runs. Rare occurrence of resting bradycardia and frequent occurrence of elevated BP in the examined group may be a result of taking the tests at the time before the start.
ADD: This paper is approved by Local Ethical Committee.

The analysis of schemes of treating schizophrenia and the organization of psychiatrical care in Poland, Germany and Ukraine

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INTRODUCTION: Schizophrenia is a chronic and one of the most severe mental disorders requiring long-lasting and comprehensive treatment. As a result of diverse systems of psychiatric care organization and differences in financial capabilities of these countries patients have a divergent access to both pharmacological and non-pharmacological treatment.
PURPOSE: The main aim of the study was the analysis of treatment schemes of people suffering from schizophrenia who underwent a therapy in PoznaĹ□ (Poland), Lviv (Ukraine) and in Kiel (Germany). The study was supposed to verify the hypothesis indicating that patients of all medical centres have been treated in accordance to various therapeutic schemes.
METHODS: The study included 50 index files of patients from medical centre in PoznaĹ□, 58 index files of patients from Lviv and 50 index files from Kiel. All necessary data were collected from patients undergoing the treatment in PoznaĹ□ and Lviv between 2010-2012, and in Kiel between 2012-2013.
RESULTS: Patients who were treated in Lviv were exposed mainly to neuroleptics I generation (haloperidol, chlorpromazine), and in the analysed group only one patient (2%) was treated with the use of olanzapine. In PoznaĹ□ a vast majority of patients was given olanzapine (64%), and in Kiel amisulpiryd (32%). Non of Ukrainian patients was given aripiprazole and risperidone depot, however, 32% and 12% and 10% and 6% of patients from PoznaĹ□ and Kiel used that medicines respectively. In PoznaĹ□ and Kiel patients were also treated with the use of atypical neuroleptics and likewise with traditional antypsychiotics. During the treatment proces patients from Ukraine frequently have to pay for the medicines and modern neuroleptics are more expensive compared to Poland and Germany. They are also not reimbursed.
CONCLUSIONS: Due to diverse reimbursement and psychiatric care systems patients suffering from schizophrenia in PoznaĹ□, Lviv and Kiel are treated according to different therapeutic schemes. Treatment system in Ukraine requires moderation and more financial support. Despite being available the price of neuroleptics restricts their usage.
ADD: This work is a part of the doctoral thesis.

This book originates form Juvenes Pro Medicina 2014 abstract submission system. Juvenes Pro Medicina 2014 was 52nd Polish and 10th International Annual Training & Scientific Medical Congress of Students' Scientific Society and Junior Doctors held between the 8th and the 10th of May 2014 in Lodz. The event was organized by Students' Scientific Society at the Medical University of Lodz (supervisor: prof. Ewa Sewerynek, chairman: Konrad Stawiski). Should you have any questions please visit www.stn.umed.pl or contact us via stn@stud.umed.lodz.pl.

Venous malformations - results of surgical treatment in patients survey.

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INTRODUCTION: Venous malformations (VM) are slow-flow vascular anomalies. They always present at birth but can be discovered clinically in infancy, childhood or adulthood. They never regress spontaneously. Sclerotherapy is the gold standard treatment but surgical excision plays an important and adjunctive role.
PURPOSE: Evaluation of the results of surgical treatment for VM in patients opinion.
METHODS: Consecutive patients with VM who underwent surgery in 2007-2013 were identified from database of Department of Pediatric Surgery & Oncology, MU of Lodz. All parents of the patients were surveyed by phone. Location of the lesion, symptoms and function before and at least 3 months after surgery, complications, previous treatment, overall parents satisfaction with the treatment and overall appearance results were analyzed.
RESULTS: Out of 42 identified patients who underwent surgery for VM, 31 were females and 11 were males aged from 3 months to 17 years (mean 7.74 years). A total of 45 procedures were performed. In 13 cases surgery was a part of combined treatment. VM affected head (n=17), lower limb (n=11), upper limb (n=9), neck (n=4) and trunk (n=1). Complications occurred in 6 patients including minor wound dehiscence (n=3), relapse (n=2), and hematoma formation (n=1). 50% - 90% improvement of symptoms (coexisted pain, swelling, skin discoloration) and function occurred in all patients. The mean overall parents satisfaction with the treatment was 9.2 (range 1-10). The mean overall appearance result was 4.11 (range 1-5).
CONCLUSIONS: Surgical treatment of VM is a choice for selected patients with high parents satisfaction and relatively good overall appearance result. Surgical excision is mandatory for patients resistant to sclerotherapy.
ADD: This paper is approved by Local Ethical Committee.

Diverticulitis among patients admitted to Department of Digestive Tract Diseases in Medical University Hospital in Ĺ□ĂłdĹş, Poland- a retrospective study

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INTRODUCTION: Colonic diverticulosis is one of the most common gastrointestinal conditions affecting the general population in developed countries. While most people with colonic diverticulosis remain asymptomatic, about 20% will experience complications. The two most common and well-recognized complications are acute episodes of bleeding and diverticulitis. Furthermore, some studies suggested that diverticula are mainly left-sided and there is no sex predilection.
PURPOSE: To determine the frequency of diverticulitis, its main symptoms and localization of diverticula within the gastrointestinal tract among patients admitted to Medical University Hospital.
METHODS: The data of 44 patients diagnosed with colonic diverticulosis using colonoscopy and computed tomography (TK) were retrospectively reviewed. The patients were admitted to the Department of Digestive Tract Diseases in Barlicki's Hospital (Ĺ□ĂłdĹş, Poland) between January and December 2013. Demographic data were acquired from patients medical records and included sex, age, comorbidities and reason for admission. The association among these data and clinical features of diverticulosis were assessed.
RESULTS: Mean age of patients with colonic diverticulosis was 71,6Âą12,9 (range 35-88) years. There were 13 men (29,5%) and 31 women (70,5%) included in the study with an average male to female ratio 1:2,38. Men were diagnosed at a younger age than women (62,2 vs 75,5 years). Diverticula were predominantly left-sided (sigmoid and descending colon) - 92,3%

cases, right-sided diverticula were found in 5,1% and multiple locations in 2,6% of patients. The major symptoms were abdominal pain (43,2%), rectal bleeding (13,6%) and change in defecation pattern (11,4% of cases). The main complication of diverticula, diverticulitis, occurred in 16 patients (36,4%).
CONCLUSIONS: Colonic diverticulosis was found to occur more commonly in women and be predominantly left-sided. There was no association between age and the diverticulitis. Diverticulitis occurred more frequently in analyzed population than in Western countries.
ADD:

Are student an endangerment for the patients? - Complience with asepsis and antisepsis rules by students of the Medical University in Lodz.

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INTRODUCTION: More than 1200 students participate in Faculty of Medicine of Medical University of Lodz. So large number of students contact and examine patients, some often perform minor medical procedures. According to the knowledge conveyed in the course of medical studies, students should be an example of the compliance with principles of asepsis and antisepsis.
PURPOSE: The aim of this study is to analyze the students behavior including compliance with the basic principles of asepsis and antisepsis, especially considering the cleaning and disinfection of hands and using appropriate protective uniforms.
METHODS: The study comprised 209 medical students of MU of Lodz from the years from II to VI. The material was collected using anonymous questionnaire containing 34 closed and one open question related to obeying the aseptic and antisepsis rules by the students during classes at hospitals.
RESULTS: We compared the results from questionnaire received from 209 people. Only 168 people(80% of respondents) have been acquainted with the principles of asepsis and antisepsis. Among them more people declare using gloves in contact with patients($p = 0.02$) and more often wash their hands after classes($p = 0.01$). Most behaviors are depended on the year of study, e.g., 60% of respondents use gloves during examination($p = 0.001$), and 51% have used disposable uniforms more than once($p = 0.00001$), half of the respondents admitted to use hospital shoes outside the building($p = 0.005$). It also revealed the dependence between gender and washing gown($p = 0.0007$). 85% of the respondents participated in the classes being sick, and some of them even during antibiotic treatment. The definition of asepsis and antisepsis concepts knew respectively 81% and 97% of respondents, knowledge depended of the year of study($p = 0.006$).
CONCLUSIONS: The analysis of knowledge of asepsis and antisepsis this group of students does not point to significant lack of knowledge of the concepts, but to not using them in practice. There is a dependence between year of study and following aseptic and antiseptic rules. In respondents opinion the most important factor in the improvement in this area is greater emphasis on education and enforcement of aseptic and antiseptic behavior. They admit that their behavior is partially result of the conditions prevailing in the classroom.
ADD:

Reimbursement law in the eyes of policy makers healthcare system

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INTRODUCTION: In accordance with the Law on reimbursement of medicines, foodstuffs intended for particular nutritional

and medical devices a drug with the RP status cannot be reimbursed, which has its counterpart on the availability of OTC category, unless it requires more than 30 days in a particular clinical condition. In practice, many active substances, like the Ibuprofen or Furagin are available in both prescription drugs and OTC drugs. It seems to be relevant to verify this fact with regard to the reasonableness and patient safety, and the ability to identify the sources of savings in the Polish health care system.
PURPOSE: The aim of the study was to verify the validity of refunding active substances present in the areas of OTC products. The specific objectives also intended to verify the health needs of patients, obtaining patients' views on access to treatment in the Polish health care system, obtaining the opinion of doctors and pharmacists about the rationality of the Law reimbursement, as well as the identification of therapeutic groups requiring increased funding from the National Health Fund.
METHODS: The study was a multicentric. The study group consisted of three subgroups comprised of pharmacists, doctors and patients. For each of the subgroups anonymous questionnaires opinion on the current Reimbursement Act were sent. Questionnaires were distributed via direct, telephone, fax and internet.
RESULTS: 1. Confirmed suspicions that since the introduction of the new law, patients often forgo reimbursement of the purchase of drugs.
2. According to respondents, the resignation of a refund of the active substances contained in OTC medicines to increase funding within other therapeutic areas will improve "compliance".
3. Requiring therapeutic groupings (according to respondents) additional funding from the National Health Fund, which included the oncology and cardiology.

CONCLUSIONS: In the opinion of doctors, pharmacists and patients it is justified to verify the new Reimbursement Act in terms of increasing the economic accessibilty patients to medicines, as well as the resignation of a refund of active substances on OTC drugs and also to increase funding for drugs within the therapeutic class oncology and cardiology.
ADD:

Prenatal stress paradigm vs. Methylasoxymethanol acetate administration - biochemical and cognitive impairments observed in animal models of schizophrenia

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INTRODUCTION: Animal models of mental diseases (eg. schizophrenia) seem to be an important tool in understanding the key theories related with pathophysiology of the disorder and are used to assess efficacy of new drugs. A model of schizophrenia with the use of prenatal stress or MAM - Methylasoxymethanol acetate administration manifests itself primarily with presentation of â□□positiveâ□□ and â□□negativeâ□□ symptoms and impaired behaviour, like spatial memory dysfunction and disruption in locomotor activity. Moreover the biochemical parameter like corticosterone and brain-derived neurothropic factor BDNF level may also change in that models (as like in clinical form of dieses).
PURPOSE: The aim of this study was to find whether spatial memory function impairment and disruption in locomotor activity were found in prenatally stressed rats (PSG) and MAM treated rats (MAMG). We were also able to determine basal plasma corticosterone level and BDNF level (in hippocampus and cortex) in the PSG and MAMG rats.
METHODS: The effect of prenatal stress and MAM administration were studied in the Morris Water Maze (spatial memory) and locomotor activity test. Corticosterone level was measured by ELISA Kit ADI-900-097 while BDNF levels were assessed by ELISA Chemikine TM BDNF kit.
RESULTS: The results indicate that both PSG and MAMG rats have shown spatial memory deterioration and increase of locomotor activity compared to the control group. In turn study of biochemical parameters indicated that basal plasma corticosterone level was increased in PSG and MAMG groups compared to the control group. In turn the results of BDNF level analyses has shown that decrease of the neurothropin level was observed in the hippocampus both in PSG and MAMG

groups compared to the control group. Moreover a decrease level of BDNF was also observed in cortex (level of BDNF was higher then in hippocampus) in the experimental groups.
CONCLUSIONS: Due to the fact that the etiology of schizophrenia is not fully understood, it seems necessary to use animal models of disease in order to improve knowledge about origins of mental dieses and methods of treatment especially with the use of new groups of neuroleptics. Regardless of the choice of the model and type of experimental animals (eg. mice, rats), no animal model of mental disorders can reflect on experiment subjects a full clinical picture of the disease therefore, the continuous development of this type of research seems to be necessary in order to increase our knowledge about schizophrenia.
ADD: This paper is approved by Local Ethical Committee., This work is a part of the doctoral thesis.

The clinical course of urolithiasis diagnosed in children under 3 years.

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INTRODUCTION: Recently the incidence of urolithiasis in children under 3 years is constantly increasing. There are some risk factors recognized in 75% of children with urolithiasis including: genetic, anatomical, metabolic and nutrition causes. Thus, the diagnostics evaluation should attempt to determine and rule out the anatomical factors and establish any metabolic disorders. The treatment is based on an increased daily fluid intake, and alterations in the nutrition pattern.
PURPOSE: The aim of this paper was to analyze the clinical course of urolithiasis in children, and detect the possible factors affecting the success of therapy.

METHODS: Between 2009 and 2013 we retrospectively investigated 68 children (34 boys and 34 girls) under the age of three treated in the Clinic of Pediatrics and Nephrology. Urolithiasis was diagnosed at the mean age of 10 months, the average follow-up lasted 26 months, until reaching 3 years (mean number of hospitalizations - 5). The retrospective analysis was based on available medical documentation, and direct contact with parents.
RESULTS: The group revealed no renal dysfunctions. Among the risk factors, the most common was hypercalcemia without hypercalciuria. The treatment of children with urolithiasis under three was based on the increased daily fluid intake, dietary recommendations (96%), and restrictions on vitamin D3 intake (45%). Among the specific treatments, the most common were citrates (51%), and supplementation of magnesium (21%). In the majority of cases, the therapy lasted over a year after the clinical absence of stones. This therapy was successful in most cases, 62% of children had no radiological manifestations of urolithiasis in the third year of life. The factors predisposing to the success of the treatment were: a negative family history of urolithiasis, unilateral stones, normal urinalysis, decrease of the Ca/Cr index, and compliance of dietary and medical recommendations.
CONCLUSIONS: Urolithiasis in children under 3 years is oligosymptomatic, the treatment is based on the elimination of risk factors, and alterations in the dietary pattern. High percentage of parents don’t respect the dietary and medical recommendations.

ADD: This paper is approved by Local Ethical Committee.

Growth delays observed in children treated because of Acute Lymphoblastic Leukemia.

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INTRODUCTION: Acute Lymphoblastic Leukemia (ALL) is the most common type of leukemia among children. Basic treatment which is sometimes completed with CNS radiotherapy includes multidrug chemotherapy and high doses of steroids. According to improvement of ALL treatment the growing number of cured patients is observed. Among them there is a group of patients who suffer from long-termed post-treatment complications. It must be mentioned that chemotherapy may cause serious organic complications and the applied treatment may affect the accurate development of a child resulting in growth delays.
PURPOSE: The aim of the study was to measure the growth of children diagnosed with ALL. The study also gives the opportunity to identify possible disorders and to determine possible relation between growth delays and sex and age of a child at the beginning of the treatment and the type of applied treatment.
METHODS: 152 patients - 63 girls and 89 boys aged between 1-17 years old at the time of diagnosis were enrolled to the retrospective study. Applied treatment protocols were as follows: BFM95, ALLIC 2002 and ALLIC 2009. All of children considered in the study were patients treated between 2000-2013 at the Pediatrics, Oncology, Hematology and Diabatology Department in Medical University of ŁĂłdŹę.
The analysed factors included: sex, age at the time of diagnosis, risk group classification determining the therapy programme, patient's height and weight at the beginning of the treatment as well as during the therapy and after its completion. Comparison between gathered data to centile ranks of healthy children has been done.
RESULTS: On the ground of the preliminary analysis during ALL intensive treatment growth delays may come about. At least one-centile rank growth delay was observed in 59,2% of patients at the time of remission attainment as well as in 61,2% of patients by the end of the treatment. 47,4% of children presented growth delays two years after therapy completion. All of the presented results are based on anthropometric data review compared with the initial measurements taken at the time of diagnosis.
CONCLUSIONS: Results indicate that children subjected to intensive ALL treatment may present growth delays because their development pace slows down. It can also be noticed that after therapy completion growth pace accelerates enabling the patient to reach regular height, relatively to their age, according to centile ranks.
ADD:

Investigation of selected polymorphisms of ABCB1 gene in predisposition to depression development

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INTRODUCTION: According to the World Health Organization about 350 millions of people around the world are affected by depression. Despite the high prevalence of this disease mechanism of depression origination is still not fully understood. Somatic diseases, chronic stress, high concentration proinflammatory cytokines, deficiency of omega-3 polyunsaturated fatty acids as well as genetic factors may predispose to development of depression.
ABCB1 gene (called MDR1) encode P-glycoprotein (P-gp) which is one of the component of blood-brain barrier. Its main function is elimination foreign and harmful substances from the brain into the blood. This may indicate potential association between proper functioning of P-gp and susceptibility to development different dysfunction of brain's cells. Several polymorphisms in ABCB1 have influence on mechanism of transcription and/or translation. One of them is silent polymorphism 3435C>T. Another is polymorphism 2677G>T/A which can cause amino acid change in nucleotide sequence.
PURPOSE: Aim of the study was the assessment of relationship between frequency of particular genotypes/alleles in two polymorphic variations of ABCB1 gene (SNP 3435C>T and 2677G>T/A) and the occurring depression, gender, age at the time of diagnosis, severity of depression symptoms.
METHODS: Genomic DNA isolated from blood 91 patients affected by recurrent depressive disorders. In case of 3435C>T conducted PCR-RFLP reaction, for 2677G>T/A automatic sequencing.
RESULTS: TT3435 genotype and T3435 allele occurred more frequent among patients with recurrent depressive disorders

(36,6% and 59,9% respectively) than healthy volunteers (21,9% and 46,9% respectively) (p=0,0441). However, frequencies of genotypes of 3435C>T were similar in compared subgroups of different gender, age and severity of symptoms.
For 2677G>T/A frequencies of particular genotypes and alleles were close among patients and healthy controls. Elevated severity of symptoms at the time of diagnosis presented patients with GG genotype of 2677G>T/A in comparison with patients with AG or GT genotype (p=0,004).
CONCLUSIONS: In contrast to 2677G>T/A, 3435C>T of ABCB1 gene may be associated with predisposition to development recurrent depressive disorders. Concurrently, a relationship between severity of depressive symptoms before medication and presence of polymorphism in position 2677 ABCB1 gene was stated.
ADD: This paper is approved by Local Ethical Committee., This work is a part of the doctoral thesis.

Economic Implications of Anesthesia Consumption in Obese Patients

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INTRODUCTION: As the prevalence of obesity continues to rise, so too does the necessity of bariatric surgery. Careful consideration of the volatile anesthetic of choice in the obese patient population must be made. Agents such as sevoflurane and desflurane are often employed, however, literature advocates that desflurane is the volatile anesthetic of choice in this patient population. The general consensus is that desflurane presents with more adverse reactions and is more expensive, however, our study has proven otherwise.
PURPOSE: The objective of the study was to estimate the consumption and cost-effectiveness of both desflurane and sevoflurane in obese patients. The consumption was compared in respect to the effectiveness of anesthesia (measure by monitoring of vital signs) and depth of anesthesia (as recorded via EEG and Bispectral Index (BIS)). Also considered was the use of adjuncts and the dosage requirements and their possible effects on the consumption of desflurane and sevoflurane.
METHODS: Two patient groups were studied: the first group was administered desflurane and the second group was administered sevoflurane. In the first group, there were 16 patients: 10 women, 6 men with an age range of 18-56 years and BMI ranging from 39-50 kg/m2. The second group included 18 patients: 13 women, 5 men with an age range of 19-55 years and BMI ranging from 37-60 kg/m2.

Anesthetic induction included fentanyl, midazolam and propofol. Anesthesia was maintained with desflurane and sevoflurane, respectively, in a mixture of oxygen. An estimation of the consumption of volatile anesthetic was measured by weighing the vaporizer. In doing so, the difference between the initial and end procedure weight was measured.

RESULTS: In part of its pharmacokinetic properties, though desflurane is a weaker anesthetic which necessitates higher dosage administration, in comparison to sevoflurane it is equal in efficacy. The consumption of desflurane in the population of study was almost twice that of sevoflurane.
CONCLUSIONS: Though the cost of sevoflurane per bottle is more than desflurane, while comparing consumption it can be noted that pricing is at par with one another. Thus, from an economic standpoint, anesthesia with the use of desflurane and sevoflurane is comparable.
ADD: This paper is approved by Local Ethical Committee.

The expression of MMP-2 and MMP-7 proteins in pancreatic ductal carcinoma

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INTRODUCTION: The matrix metalloproteinases (MMPs) are a family of zinc-dependent endopeptidases. They are involved in degradeation of the extracellular matrix and have been implicated in the physiological processes as angiogenesis, wound healing and tissue remodeling. The imbalance between tissue inhibitors of metalloproteinases and MMPs play a roles in the pancreatic ductal carcinoma development.
PURPOSE: The aim of the study was to determine the expression of matrix metalloproteinase 2 and 7 in pancreatic ductal carcinoma.
METHODS: The study was conducted on a group of 29 patients with pancreatic ductal carcinoma. Using immunohistochemistry we analyzed expressions of MMP-2 and MMP-7. The reaction was done using specific monoclonal antibodies directed against MMPs. Expression of proteins was evaluated semiquantitatively. Positive reaction was defined as expression in ?25% of cells. Proteins expression was correlated with anatomo-clinical parameters.
RESULTS: The expression of proteins MMP-2 and MMP-7 was significantly higher in pancreatic cancer cells than in normal pancreatic ducts ($p<0.0001$ $p<0.0001$, respectively). In addition we observed, a significantly higher MMP-7 protein expression in cancer cells than in the tumor stroma ($p<0.0001$) whereas the expression of MMP-2 protein in tumor cells did not differ from this reaction in tumor stroma. MMP-2 in cancer cells showed a higher expression in women ($p=0.013$). Also we demonstrated that the positive expression of MMP-2 in cancer correlated with stronger inflammatory response ($p=0.004$). Moreover, the expression of MMP-2 in tumor stroma was associated with adenocarcinoma histological type without mucinous component ($p=0.016$). No correlation was found between tumor MMP-7 expression and chosen anatomo-clinical parameters.
CONCLUSIONS: MMP-2 and MMP-7 proteins play a role in carcinogenesis of pancreatic ductal adenocarcinoma. An increase in MMP-7 expression in cancer is independent of anatomo-pathological parameters whereas MMP-2 expression can be determined by gender and may be linked with inflammatory response and histological type of cancer.
ADD: This paper is approved by Local Ethical Committee.

Metastases to the thyroid gland - insignificant problem in patients with cancer?

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INTRODUCTION: Secondary tumors of the thyroid are found during autopsy study with frequency of 2-20%, primary tumor is typically located in the kidney, colon, or lung. However, the clinically manifested metastases to the thyroid gland are rare.
PURPOSE: Comparison of detection of metastases to the thyroid gland (TM) and cervical lymph nodes (NM) (non-primary tumors of the thyroid) in patients with positive (N+) and negative (N-) history of cancer during ultrasonography (US) and fine-needle aspiration biopsy (FNAB) of the thyroid. Analysis of the ultrasound and cytologic image of metastases.
METHODS: US/FNAB results of 1394 patients N+ and 20000 patients N- and 6000 histopathological examinations (HE) of the thyroid were analyzed.
RESULTS: TM and NM were diagnosed/suspected in 47 people with frequency higher in the N+ than N- (29/2.1% vs. 18/0.09%, $p<0.0001$). Most commonly metastases were found in patients with breast cancer, however the relative frequency of metastases was the highest in patients with cancer of the salivary gland - 12.5% (3 of 24 patients with this cancer; $p<0.001$ vs. patients with breast cancer (4 of 432, 0.9%), then: larynx cancer- 8.3% (2 of 24), prostate cancer- 5.0% (2 of 40), renal cancer - 4.0% (3 of 75), lung cancer - 3.1% (3 of 96). In 24% of patients the FNAB result clearly indicated the TM or NM, in other cases malignant neoplasm (MN) was diagnosed (41%) or suspected (35%). Only 4 patients had symptoms of thyroid malignancy, 5 were previously treated with 131I and 10 underwent thyroid surgery. Postoperative HE (16 people) confirmed TM in 12 (75%) cases; in 2 cases papillary carcinoma was revealed, in other malignancies were not found. Moreover HE revealed 9 TM (N- patients), 6 of them had had FNAB before (2 primary MN, 2 follicular neoplasm, 1 chronic thyroiditis and 1 FNAB was non-diagnostic). Only 56% of TM were found in an enlarged thyroid, and 88% of TM constituted one of numerous focal lesions in the gland. TM had suspicious US features in 88% of patients, 65% of them had at least 2 US risk features. NM

were found usually in enlarged (84%) and hypoechogenic (74%) lymph nodes.
CONCLUSIONS: Although metastases to the thyroid gland are rare, patients with malignancy, particularly the head or neck cancer, should be evaluated in this direction. Cytologic and ultrasound image of metastasis is usually not specific, but it may be useful in identification of patients requiring further diagnosis and treatment.
ADD:

Analysis of Th17 cell activation and expression of EP3 receptor as indicators of aggressiveness in laryngeal cancer

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INTRODUCTION: Prostaglandin E receptor 3 (EP3) is membrane receptor for PGE2 which has many biological functions and its role in cancerogenesis is wildly discussed in the literature. Interleukin 23 (IL-23) is an important regulatory cytokine which stimulates naive CD4+ T cells to differentiate into a novel Th17 subset cells and activates Th17 lymphocytes. It also promotes upregulation of the matrix metalloprotease MMP9, increases angiogenesis and reduces CD8+ T-cell infiltration. Moreover, IL-23 enhances T cell priming and stimulates the production of other proinflammatory molecules such as IL-1, IL-6, TNF-alpha, NOS-2, and chemokines resulting in tumor growth.
PURPOSE: The aim of this study was to assess the function of autologous peripheral blood mononuclear cells (PBMCs) involved in the immunological processes on the basis of expression of IL-23, IL-17 and EP3 receptor as well as analysis of the relationships with clinical and morphological features of the tumor (pTNM, S stage, G feature and degree of invasiveness according to the Anneroth, Batsakis and Luna classification) in laryngeal carcinoma
METHODS: To evaluate the potential influences of IL-17, IL-23 and EP3 on cancer invasiveness, a case-control study was conducted in 65 patients treated for squamous cell laryngeal carcinoma. The abundance of EP3 protien in tumor tissue by immunohistochemistry method was determined. The expression of IL-23 and IL-17 was investigated by using the enzyme-linked immunosorbent assay (ELISA) in culture of peripheral blood mononuclear cells (PBMCs).
RESULTS: The statistical relationships between the expression of IL-23 and EP3 as well as the aggressiveness of tumor determined on pT, type and depth of invasion were disclosed. The study also revealed a significant dependence of IL-23 expression on ABL total score as well as EP3 receptor expression on pT and both, depth and type of invasion. Advanced tumors pT3-pT4 with disperse infiltration and deep growth to cartilage were characterized by the higher average values of IL-23 in cultures of PBMCs. Tumors with the highest aggressiveness identified by the classification criteria of ABL scale were characterized by the highest expression of EP3 in the study population. IL-17 expression in relation to clinic-morphological features were not disclosed.
CONCLUSIONS: The study results suggest an impact of IL-23 and EP3 in determining proliferate and aggressive potential of laryngeal carcinoma, highlighting the significance of mentioned proteins as potential predictive indicators
ADD: This paper is approved by Local Ethical Committee., This work is a part of the doctoral thesis.

Expression of sVCAM and SLUG in laryngeal carcinoma - the proteins which determinate invasiveness of the tumor.

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INTRODUCTION: SLUG protein is the issue regulator of angiogenesis and the potential repressors of E-cadherin transcription

in carcinomas of various origin. Vascular intercellular adhesion molecule (sVCAM) has a potential role in immunoregulation of antitumor response by mediating immune cell infiltration into the tissue. The degree of activation of this molecules may determine the course of the neoplastic disease.
PURPOSE: The aim of this study was to assess the expression of sVCAM in cultures of peripheral blood mononuclear cells and the expression of SLUG protein in laryngeal carcinoma as well as analysis of the relationships with clinical and morphological features of the tumor (pT and pN stage, G feature, degree of invasiveness according to the TFG classification) in laryngeal carcinoma.
METHODS: The analysis included a group of 71 patients with verified squamous cell carcinoma of the larynx. In the pathologic evaluation pTNM classification criteria, degree of histological differentiation as well as depth and type of invasion according to TFG classification were used. Expression level of s VCAM by using the enzyme-linked immunosorbent assay (ELISA) analysis was determined. The cytoplasimc and perinuclear expression of SLUG in neoplastic tissue by immunohistochemistry were performed (three expression levels were determined: luck of expression, under 10%, above or equal 10% positive stained tumor cells).
RESULTS: In squamous cell carcinomas of the larynx with the highest morphological tumor aggressiveness the significantly highest level of the expression for both sVCAM and SLUG was observed ($p>0.05$). The positive linearly correlation of mentioned proteins with the degree of local extent of the tumor (pT3-4), depth of invasion (invasion of cartilage), type of invasion and the degree of histological differentiation (low-differentiated tumors G3) was noted.
CONCLUSIONS: The study results indicate the important role of sVCAM and SLUG as indicators of advancement of clinical and morphological changes in squamous cell carcinoma of the larynx.
ADD: This paper is approved by Local Ethical Committee.

Chemotherapy with betulinic acid and cisplatin enhanced by electroporation in human melanoma cells.

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INTRODUCTION: Electroporation (EP) is a method involving the influence of an external electromagnetic field to increase the cell membrane permeability by the formation of unstable channels in the cell membrane. EP enables the penetration of macromolecules from the extracellular space into the cells. It is a modern method used in the treatment of cancers such as melanoma. The application of the cytotoxic drugs such as cisplatin or betulinic acid in combination with electroporation enhances drug transport and effectiveness what leads to cell death. The use of drugs causes cellular stress and increase of expression of heat stress proteins (HSPs).
PURPOSE: The aim of our study was to investigate the influence of electroporation in combination with chemotherapy on viability and heat shock protein expression in human pigmented melanoma cells (line Me45).
METHODS: Cell culture. The human pigmented malignant melanoma (Me45) cell line (derived from a lymph node metastasis of skin melanoma in a 35-year-old male). This cells were grown in DMEM (medium) with addition of 10% fetal bovine serum and supplemented by antibiotics. For experiments, the cells were removed by trypsinization (Trypsin-EDTA) and washed with PBS. The cells were maintained in a humidified atmosphere at 37Â°C and 5% CO2.
Chemotherapy. Me45 cells were treated with cisplatin and betulinic acid in various concentrations (from 1 to 50ÂľM) and after them were incubated for 24, 48 and 72 hours.
Electroporation. In electroporation experiments different voltage values (from 0 to 5000V/cm), 8 pulse duration of 100Âľs, intervals between pulses 1s were used.
Treatment efficiency. The cells viability was determined by MTT assay, which controlled mitochondrial metabolic function. The level of expression of heat shock proteins (HSP-27 and 70) were performed using immunocytochemical ABC assay.

RESULTS: The experiments showed that cells viability decreases with increasing concentrations of a drug. Betulinic acid induced greater influence on the cell viability than cisplatin. The best results were obtained after 72h incubation. The electrical field with 800 and 1200 V/cm were suitable for the effective cells permeabilization. The electroporation effect was

increased drug delivery into the cells and the efficiency chemotherapeutic action. Immunocytochemical reaction for HSP27 showed a positive stained cells only after electroporation with drugs. The level of HSP70 expression was not observed in any case.
CONCLUSIONS: Betulinic acid exhibits greater cytotoxicity in Me45 cells than cisplatin. The most significant results were obtained at 72 hours after drug administration. The use of electroporation effectively enhances the transport of cisplatin into the cell and thus also reduces their viability. The electroporation effect can reduce the time of anticancer therapy.
ADD: This paper is approved by Local Ethical Committee.

The medical staff of the Litzmannstadt Ghetto - a battle against the odds and the issue of ethics

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INTRODUCTION: The horrors of Shoah and the atrocities of the German occupants on Jews are an ever-present stigma of the 20th century. The mass murders in extermination camps and deaths in ghettos established all over the Old Continent were a fate pre-imposed by the enemy.
The ĹĎĂłdĹş Ghetto, over four years of its existence, had an estimated population of 200 000; of those, only 800 Jews were left after the retreat of the Nazis. About 44 000 people died from famine and disease, regardless of having an extensive health care system and dedicated physicians in service of the residents.
PURPOSE: The purpose of this work is to show the history of the Litzmannstadt Ghetto from the moral and ethical perspective of the doctors who faced the misery of the overcrowded, unsanitary conditions in which malnutrition, infectious diseases and depression annihilated thousands of victims of the Nazi regime.
METHODS: Methods used in my study were typical for a historical investigation, combining descriptive and analytical research based on eyewitness testimonies, epidemiological data and statistics, government documents and reports, scientific papers and publications, historical sources (e.g. The Chronicle of Litzmannstadt Ghetto).
RESULTS: Struggling with insufficient equipment, constant shortage of medication and the inability to secure hospital beds for all in need, the Health Service was obliged to ration its resources on an unprecedented, radical scale. Many a time the only thing the medical staff had to offer was hope.
CONCLUSIONS: The living conditions inside the ghettos were contradictory to basic human rights and the innate humanitarian morality towards other people. Learning the history of our predecessors is an invalubale lesson to all in pursuit of a medical career: both to honour the legacy of the devotion of the Jewish physicians and to bear in mind the moral ethics of their service. The demeanour of the medical staff was a constant defiance to the Nazi opression, a unique show of support to each and every Jew doomed to death inside the walls of the Litzmannstadt Ghetto.
ADD:

Comparison of the state of knowledge on psychoactive substances of medical and non-medical students

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INTRODUCTION: Psychoactive substances accompanied mankind since ancient times. Initially, they were used by a small group of sorcerers or priests during religious and mystical rituals. With time, the popularity of narcotic drugs has increased

and now, despite the proscription of many chemicals, they are spread all over the world. According to the Report of the World Health Organization (WHO) published in 2012, addiction to psychoactive substances refers to 153-300 million people between 15 and 64 years old, which is 3,4-6,6% of the population. Annually, an average of 99-253 thousand deaths are caused by the use of illegal products. More than 16 million people inject drugs intravenously, among them 3 million are HIV-positive, more than 7 million - HCV-positive and more than 2 million - HBV-positive.
The growing proportion of addicted and the increasing number of deaths and infectious diseases related to drug use contributed to the adoption in 1971 the Convention on Psychotropic Substances by the United Nations. In Poland, the first statute on preventing drug addiction was signed in 1985. The current document is the Act on Counteracting Drug Addiction from July 29th 2005, with the amendment from 2012. According to the Act on the list of entities dealing with counteracting of drug addiction are health care facilities and other institutions involved in health care. The National Health Program for 2007-2015, setting out the objective of the program of prevention and harm reduction of addiction, assumes that among the implementers of prevention are doctors, nurses, midwives, paramedics and hospital administration. Therefore, it is advisable that the person performing the medical profession, will demonstrate considerable knowledge about the health effects of psychoactive substance use and prevention and treatment of addiction, and intoxication with these substances. Students of medicine, as future implementers and authors of preventive and therapeutic programs, should show a greater interest in the influence of drugs on human organism during studies than non-medical students.
PURPOSE: The aim of the study was to compare the awareness and knowledge of medical and non-medical students about the health consequences of psychoactive substance use.
METHODS: The study was conducted by questionnaire survey among medical students: medical, dentistry, nursing, obstetrics, emergency medicine, laboratory medicine, public health and nutrition and non-medical students. Respondents completed the original survey form containing questions on knowledge of the current legal situation in Poland, classification and health consequences of use of psychoactive substances, and attitudes towards the problem of drug addiction. The obtained data were statistically analyzed using the STATISTICA 10.0.
RESULTS: Tested were 298 of medical and non-medical students. Among medical students 39.8% of the respondents were able to correctly classify individual substances to the group according to classification ICD10, while among non-medical students - 30%. 17.8% of people of medical and 10% of non-medical studies knew how to recognize the most characteristic effects of long term use of psychoactive substances. Only 42.8% of respondents know the value of allowable blood alcohol concentration of the driver in traffic in Poland, although up 79.8% of the respondents have a driving license.
CONCLUSIONS: 1. Medical students show a greater knowledge of the types of psychoactive substances and the effects of their use.
2. The respondents have insufficient knowledge of the polish law concerning psychoactive substances.
ADD: This paper is approved by Local Ethical Committee.

Treatment of respiratory tract infections in children aged three to six from a primary care physician viewpoint

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INTRODUCTION: Respiratory tract infections are the most frequent reason for ambulatory visits at primary care physicians (PCPs) of children aged three to six. Most of these infections are viral, but some are bacterial or mixed. The crucial issue for physician is to decide whether the antibiotic therapy is required or not, and if so, which group of antibiotics would be the most appropriate. The effectiveness of therapy also depends on non-antibiotic medicaments, including OTC drugs, and patients' compliance.
PURPOSE: The aim of our study was to identify the most important factors that influence PCPs' decisions regarding treatment of respiratory tract infections in children aged three to six in everyday practice, focusing on prescribing antibiotics and patients' compliance.
METHODS: The questionnaire survey was carried out in a convenience sample of 108 PCPs in Lodz region (central Poland). The questions regarded the details of prescribing antibiotics in different cases, including influence of parents on physicians`

decisions and treatment compliance.
RESULTS: Our findings show that the patient's symptoms and physician's knowledge are important, but not the only factors that influence physicians' decision about treatment of respiratory tract infections in children aged three to six. More than 80% of respondents declared having prescribed antibiotics in cases that they were not strictly recommended, with asthma, allergies, other chronic diseases and child's low age being the most frequent causes of such decisions. In approximately 45% of physicians parental pressure was the cause for prescribing antibiotics. Our findings also showed that over 90% of respondents often prescribe non-antibiotic medicaments, most frequently inozine, expectorants and fenspirid, and more than 60% of them believe that this increases parents' satisfaction with an appointment. Physicians emphasize the non-compliance of a considerable number of parents as the reason for low effectiveness of therapy. They do not follow the recommendations despite having been informed in the majority of cases about the necessity of proper dosage and frequency of administration of antibiotics, as well as risks and consequences of non-compliance.
CONCLUSIONS: The effectiveness of the treatment relies on the combination of proper antibiotic and non-antibiotic drugs, as well as parents' attitude and compliance. Therefore, in everyday practice, PCP's have to consider all of these factors to choose the most efficient therapy.
ADD:

Increased expression of WSX1 on alveolar lymphocytes (AL) in patients with non-small cell lung cancer (NSCLC) confirms the strong antitumor activity of Interleukin 27 (IL27)

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INTRODUCTION: WSX1 is IL27 receptor. IL27/WSX1 is one of the most significant axis participating in supporting Th1 immune polarization, therefore potentially important for NSCLC therapy. Previously, in contrast to scientific literature, we reported possible IL27 production by non-APC cells - AL. In continued studies, we tried to enrich knowledge about WSX1 expression in lower airways, because it is still deficient.
PURPOSE: Evaluation of WSX1 expression in human lower airways and influence of external factors on its levels in NSCLC patients.
METHODS: WSX1 expression was determined by direct phenotyping in BAL AL collected from patients with pulmonary sarcoidosis (PS, n=17, 7 smokers (S), 10 non-smokers (NS)), NSCLC (n=12, NS=6, S=6) and controls (CG, n=11, NS=6, S=5).
RESULTS: NS subjects with PS and NSCLC demonstrated significantly higher level of WSX1 expression on AL in comparison with NS CG (PS: 6,5Âą2,3; NSCLC: 8,2Âą31; NS CG: 3,8Âą1,1; medianÂąSEM, p<0,05). Similarly, increase of WSX1 CD4+ and CD8+ AL subsets was also statistically significant in NS patients of all tested groups. Surprisingly, S CG was characterized by significant increase of WSX1+ AL in comparison with NS CG (7,5Âą2,3 vs. 3,8Âą1,1).
CONCLUSIONS: All AL subsets are characterized by WSX1 expression. WSX1 seems to be activation marker of AL (non-specific character; its higher expression was found in PS and NSCLC subjects). However, in opposite to PS, BAL cytoimmunological pattern in the NSCLC was similar to controls. T cell WSX1+ rate may serve as a sensitive marker of lung malignancy. Moreover, WSX-1 increased levels on CD8+ AL of NS NSCLC patients is responsible for amplify the cytotoxic response which is crucial for cancer remission, contrariwise its higher levels on CD4+ AL inhibit unwelcome Th2 axis. Results also seem to confirm the antitumor role of IL27.
ADD: This paper is approved by Local Ethical Committee.

Basic clinical variables change the chance of positional vs non-positional obstructive sleep apnea syndrome

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INTRODUCTION: The importance of obstructive sleep apnea syndrome (OSAS) relates to the increased risk of cardiovascular adverse effects and excessive daily sleepiness seriously impairing daily activity. Nocturnal polysomnography is mandatory diagnostic procedure before the initiation of treatment, unfortunately not widely accessible. Two clinical sub-types of OSAS are recognized: non-positional OSAS with apnea-hypopnea index (AHI) ? 15/h in supine and lateral decubitus positions and positional OSAS with AHI ? 5 in supine and AHI < 5/h in lateral position. This has practical implications as the first subtype is obligatory treated with CPAP (continuous positive airway pressure) device, and the latter is amenable to positional treatment.
PURPOSE: We decided to assess the value of clinical variables gathered on standard examination in changing the probability of the diagnosis of positional vs non-positional OSAS. As the term implies, this would expectantly enable selection of patients amenable to positional treatment even prior to polysomnographic evaluation.
METHODS: We collected clinical and polysomnographic data on 1181 patients from Sleep and Respiratory Disorders Centre outpatient registry. All patients were referred to the centre due to the presumptive diagnosis of OSAS based on typical symptoms, e.g. witnessed apneas, excessive daily sleepiness, or unrefreshing sleep. All patients underwent nocturnal diagnostic polysomnography. Clinical (from patients' charts) and polysomographic variables were used to create a database. Variables of interest included age, body mass index (BMI), sex, Epworth Sleepiness Scale (ESS) score, history of hypertension and smoking (defined as at least 15 pack years). Patients who slept at least 30 minutes in lateral decubitus and dorsal decubitus position (n=970) were enrolled to create logistic regression models assessing the influence of the variables on AHI.
RESULTS: The initial probability of positional OSAS was 38%. It decreased independently with the rise of BMI (OR 0.68, 95%CI 0.57-0.82). Effect of age, ESS score, hypertension of elevated blood pressure on examination (defined as blood pressure greater or equal to 140/90mmHg), sex and smoking on probability of positional OSAS was not proven statistically significant. When considering the chance for non-positional OSAS a wider range of parameters proved useful. The initial probability of 31% was modified not only by BMI (OR 1.49, 95%CI 1.26-1.77), but also by age (OR 1.16, 95%CI 1.05-1.28) and ESS score (OR 1.07, 1.03-1.11) independently. History of hypertension or elevated blood pressure on examination increased probability of this diagnosis (OR 1.36, 95%CI 1.10-1.69). Both male gender and smoking were independent risk factors as well (OR 1.37, 95%CI 1.10-1.70 and OR 1.19, 95%CI 1.01-1.41 respectively).

CONCLUSIONS: Basic clinical variables gathered on examination influence patient's probability of positional vs non-positional OSAS and thus success of positional vs the need for CPAP treatment. Thus, it is possible to stratify the need for polysomnography among patients with symptoms typical for OSAS based on the chance of positional OSAS diagnosis and successful positional treatment.
ADD:

The course of singleton pregnancy and perinatal outcome after in vitro fertilisation (IVF)

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INTRODUCTION: Nowadays we more often observe pregnancies conceived after IVF, which are usually treated as high risk pregnancies.

PURPOSE: To compare the course of singleton pregnancy and perinatal outcome in patients after IVF and natural conception.

METHODS: Retrospective analysis of 374 medical charts of patients hospitalized between 2004-2011 at the 1st Department of Obstetrics and Gynecology, Medical University of Warsaw, was carried out. The study group (SG) comprised of 187 patients after IVF, while control group (CG) of 187 patients after natural conception. The groups were adjusted by age and parity of the patients. The course of pregnancy and perinatal outcome were analysed and compared between both groups. STATISTICA software was used for statistical analysis and $p<0.05$ was considered significant.

RESULTS: There were no significant differences between SG and CG in the following parameters: BMI (22.7Âą3.7 vs 23Âą4), weight gain in pregnancy (14.06Âą5 vs 14Âą5), gestational diabetes (10.7% vs 14.4%), pregnancy induced hypertension (6.42% vs 8.02%), cholestasis (1% vs 1.6%) and occurance of placenta praevia (3.21% vs 0.53%).
Although the rate of preterm births <37 weeks of gestation did not reach significance between the groups (11.76% vs 6.95%), there was a relevant difference when deliveries <34 weeks were compared (SG 9.09% vs CG 1.6%; $p<0.0001$). It also resulted in a highly significant difference between SG and CG in gestational age at delivery (38Âą3.51 vs 39Âą1.69, $p=0.0005$). Similar tendency was observed when neonatal birth weight was compared between SG and CG (3268Âą606 vs 3430Âą561, $p=0.007$). Almost all the neonates were born in good general condition according to Apgar score in 1st minute (94.65% vs 96.25%).
Patients from the SG more often had an elective caesarean section (CS) performed in comparison to patients from the CG (43.73% vs 29.41%, $p<0.001$). The only indication for an elective CS was IVF in 16% of cases.

CONCLUSIONS: The course of pregnancy after IVF does not differ in many factors from the pregnancy after natural conception. Preterm birth remains the major concern in IVF pregnancies, making them higher risk.

ADD:

SEVERE SURGICAL STATES IN PREGNANCY

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INTRODUCTION: We would like to present the study of severe surgical states of pregnant women. During gestation we can distinguish dysfunctions caused by physiological changes occurring in that specific period. Chronic diseases which began before fertilization and acute conditions may influence the course of gestation. We focus on diseases of the gastrointestinal tract and traumas, as they are the most common cases which demand sudden medical procedures.
PURPOSE: To gather information about the frequency of surgical entities in pregnancy, outline general rules of treatment and describe distinction in essential medical tests and applied pharmacotherapy between pregnant and non-pregnant women. We would like to consider the impact on the process of gestation and prognosis.
METHODS: We have been searching through the archive of the Department of General and Oncological Surgery, Medical University of Lodz for hospital records of pregnant women being admitted to the surgical department over 6 years. Additionally, we have reviewed the literature. Based on the medical cases we found, we would like to discuss the highlighted issues.
RESULTS: Since February 2008, five medical cases of pregnant women have been registered at surgical department.
Two of them had acute appendicitis diagnosed, which reflects the literature evidence mentioning this surgical disease as the most common among pregnant women. USG examination, morphology and urine tests as standard procedures were performed and additionally: B-HCG, gynecological consultations, CTG and transvaginal ultrasound. The women underwent open appendectomy with subarachnoid anesthesia and were supplied with antibiotics (amoxicillin with clavulanic acid), verapamil, analgesics and anti-contraction medications - tocolytic (fenoterol) or progesteron (Lutein). After surgery, no complications were noticed.
The rest of the patients had periappendicular infiltration, reducible femoral hernia and multiple trauma with concussion - all were treated conservatively.

CT and RTG examination were not performed on the patient with multiple trauma due to the pregnancy.
CONCLUSIONS: In order to ensure complex care both for mother and her unborn child, cooperation between surgical and gynaecological wards is indispensable. It demands hospitals have these wards working simultaneously. Unfortunately, seldom do we observe such establishments in our region.
The risk of complications is lower and prognosis much better if the operation is performed immediately after the proper diagnosis.
ADD:

Survey research on attitude towards honorary blood donation in Polish society

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INTRODUCTION: The role of blood transfusion, as a medical procedure, is constantly growing in Poland as well as in developed countries of the world. There is an increasing medical demand for blood products which requires bigger number of people becoming blood donors. According to opinion of medical professionals there might be a distinct relation between number of blood donors and social attitude towards the issue of blood donation.
PURPOSE: The aim of the study is to evaluate the approach of Polish society to the issue of blood donation and it's knowledge on this subject.
METHODS: The method chosen for this study was to conduct an online survey with a use of original questionnaire. The questionnaire contained- inter alia - questions about respondent approach to honorary blood donation and knowledge about the rights, responsibilities and privileges of donors. The survey also included questions about common myths associated with blood donation. It was distributed via e-mails and discussion lists - selection of respondents was voluntary. The obtained data were statistically analyzed with STATISTICA 10.0 (Statsoft, 2011).

RESULTS: Until 28 February 2014, 4443 people participated in the survey. 53.75% of survey participants donated blood at least once in their life - more often men than women (68.93% vs 47.90%; $p<0.001$). The results of survey indicate the correlation of becoming a blood donor with education status - highest percentage in group of people with primary and lower secondary education (62.92%), lowest - in people with higher education (50.05%) - $p<0.001$.
The main causes of decision to donate blood were altruism (90.20%), blood donation campaigns together with information from friends (30.42%) or will to do cost-free laboratory tests (30.07%).
77.58% of respondents believe that the honorary donation of blood in Poland is popularized poorly in relation to current needs - and 67.27% encourage colleagues, friends and family to donate blood.
Analysis of the level of knowledge of respondents shows that: 83.93% of them knew the volume of blood collected during one donation, 68.96% knew the age limit for blood donors and 55.91% of the respondents were aware of permitted frequency of blood donation.
Study is still in progress - due to the limitations of the abstract, other and final results will be presented during the conference.

CONCLUSIONS: Polish society is characterized by a moderately good approach to the issue of blood donation, and has a fairly good knowledge on topics associated with it. Undoubtedly, further actions are needed to promote the honorary blood donation in Poland.
ADD:

G protein-coupled receptor 30 expression in inflammatory bowel diseases patients

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INTRODUCTION: G protein-coupled receptor 30 (GPR30) is a novel estrogen receptor that mediates estrogenic effects on the human endothelial cells which plays an important role in the inflammatory response. It has been postulated that in inflammatory bowel diseases (IBD) GPR30 blocks the immunological pathway dependent on pro-inflammatory proteins, such as intracellular cell adhesion molecule-1 (ICAM-1) and vascular cell adhesion molecule-1 (VCAM-1). However, little is known about the protein expression of GPR30 and its role in IBD.
PURPOSE: The aim of this pilot study was to determine whether GPR30 is expressed in colonic tissue of IBD patients and if so, whether the GPR30 protein expression differs between non-IBD and IBD patients.
METHODS: 29 patients were enrolled in our study, 15 women with a mean age of 38Âą14 yrs and 14 men with a mean age of 35Âą15 yrs. Controls consisted of 7 healthy non-IBD patients. In each subject two biopsies were taken from different colonic locations in Crohn's disease (CD; n?=9), ulcerative colitis (UC; n =3) and control patients (n?=?4). In IBD patients biopsies both from all endoscopically inflamed and non-inflamed areas were drawn and confirmed in histopatological examination. The GPR30 protein content was detected using immunoenzymatic (Western blot) method with specific primary antibodies against GPR30 protein. Three types of samples were analyzed: control, non-inflamed and inflamed colon biopsies from IBD patients. Each assay was performed in triplicates.
RESULTS: In our study the higher protein content of colonic GPR30 in men than in women was recorded (1.43Âą1.27 vs. 0.64Âą0.57; p=0.037). Interestingly, an up-regulation of GPR30 protein level in IBD patients when compared to control was observed (1.10Âą1.05 vs. 0.33Âą0.19; p=0.0496). The up-regulation of GPR30 in IBD patients was sex-independent. The comparison of the GPR30 protein level in the inflamed and non-inflamed tissue samples from the same CD patient indicated that there is a tendency toward lower GPR30 protein content in inflamed than in non-inflamed tissue (0.82Âą0.87 vs. 1.10Âą1.18; p=0.499). In addition, the reduced level of GPR30 in inflamed vs. non-inflamed tissue in CD and UC patients was independent from sex and intestinal location.
CONCLUSIONS: GPR30 protein is detectable in colonic tissue of IBD patients. The non-inflamed areas of colonic tissue of CD patients are characterized by higher protein level of GPR30. The up-regulation of GPR30 in non-inflamed areas seems to be independent from sex and lesions location. Therefore, we speculate that GPR30 can play a role in inhibition of inflammatory process in IBD patients and may affect the level of disease severity, as well as the response to treatment. The GPR30 receptors may become an attractive target for novel drugs in the treatment of IBD.
ADD: This paper is approved by Local Ethical Committee.

Retention sutures in patients after major abdominal surgery

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INTRODUCTION: Early postoperative wound dehiscence and evisceration are serious complications in abdominal surgery with high mortality and morbidity rates. Retention sutures as nonstandard procedure does not have a negative effect on wound healing and may prevent dehiscence in the postoperative period in patients with high-risk groups.
PURPOSE: The aim of the study was to evaluate the efficiency and determine the indications for retention sutures in patients after major abdominal surgery.
METHODS: Prospective study included patients who underwent midline laparotomy with risk factors for dehiscence hospitalized from 2011 to 2013. Total number of 140 patients were included in the study and randomly divided into two groups, study and control. In the study group retention sutures were added to the standard procedure for closing the abdominal cavity. Retention sutures included skin, subcutaneous tissue, rectus muscle and abdominal fascia.
RESULTS: The study group included 70 patients with mean age of 67 years and control group 70 patients with an average

age of 69 years. The total wound dehiscence occurred in 1.4%(n=1) in group with retention sutures and in 7.1%(n=5) control group($p<0.05$). Mean time to wound dehiscence after surgery was 5 days, with no differences between groups. Abdominal evisceration after surgery occurred in 1.4%(n=1) patients in the study group and 2.8%(n=2) in the control group($p>0.05$). Reoperation due to wound dehiscence was performed in 1.4%(n=1) patients in the study group and 3.2%(n=3) in control group($p>0.05$). In the study groups there was no difference in the length of hospital stay and wound infection rate. In the study group post-operative pain was significantly higher in the 3., 4. and 5. postoperative day($p<0.05$).
CONCLUSIONS: Retention sutures reduce the incidence of postoperative wound dehiscence following midline laparotomy in patients with multiple risk factors. There was no influence of prophylactic retention sutures for the incidence of postoperative complications.
ADD: This paper is approved by Local Ethical Committee.

Relation between obstructive sleep apnea syndrome and blood pressure

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INTRODUCTION: There is a body of evidence that obstructive sleep apnea syndrome (OSAS) increases the risk of cardiovascular diseases, e.g. arterial hypertension.
PURPOSE: We decided to verify whether an association of severity of sleep apnea and arterial blood pressure (BP) occurs and if any differences between men and women in this relation can be elucidated.
METHODS: We created a database comprising 1181 patients. All patients were referred to the Sleep and Respiratory Disorders Centre due to the complaints suggestive of OSAS, namely: excessive daily sleepiness, unrefreshing sleep or witnessed apneas. They underwent diagnostic polysomnography. We selected patients who did not have history of hypertension, i.e. were not treated with any medications lowering blood pressure (n=465). The subgroup comprised 361 men and 104 women. The variables included in the analysis were: apnea-hypopnea index (AHI), body-mass index (BMI), systolic blood pressure (SBP) and diastolic blood pressure (DBP) measured before (in the evening) and after the polysomnography (in the morning), a difference (?BP) between morning and evening systolic (?SBP) and diastolic (?DBP) blood pressure. Associations between variables were assessed by means of Spearman correlation.
RESULTS: AHI correlated with systolic and diastolic blood pressure taken in the evening (for SBP: $r=0.13$, $p<0.01$; for DBP: $r=0.12$, $p<0.01$) and in the morning (SBP: $r=0.19$, $p<0.001$; DBP: $r=0.23$, $p<0.001$), as well as with ?DBP ($r=0.13$, $p<0.01$), but not ?SBP ($r=0.08$, $p=0.10$). Also, BMI correlated with blood pressure, but not with the differences between evening and morning measurements. A similar association between BMI and blood pressure was found in both men and women when assessed separately.
In a partial correlation analysis, which excluded contribution of BMI to coefficients, AHI correlated in men with SBP and DBP in the morning ($r=0.11$, $p<0.05$ and $r=0.13$, $p<0.05$ respectively), but not with the measurements from the evening before the polysmnography. Also a correlation between AHI and ?BP was observed (for ?SBP $r=0.13$, $p=0.01$, for ?DBP $r=0.15$, $p<0.01$). This correspondence was not observed in women in any of blood pressure measurements or differences between evening and morning BP.
CONCLUSIONS: Independently of obesity, only among men an increase in AHI was associated with rise of both systolic and diastolic blood pressure in the morning.
ADD:

Restoration of the intestinal continuity - risk factors

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INTRODUCTION: Procedures of the restoration of the intestinal continuity are performed in patients after the surgical excavation of the protective ostomy among which such a procedure during the primary intervention would coincidence with a high risk of the bowel's anastomosis failure. The restoration of the intestinal tract leads to the improvement of the patient's quality of life but is associated with a high risk of morbidity and mortality.
PURPOSE: The aim of this study was to evaluate the influence of various risk factors on the morbidity after the intestinal continuity restoration surgeries.
METHODS: The study included 180 patients who underwent the procedure of the intestinal continuity restoration from 2003 to 2012. The data were retrieved from the retrospective analysis of the medical and surgery records.
RESULTS: The study group consisted of 104 male and 76 female patients of the average age of 52.6Âą16.8. The overall morbidity rate was 41.1 % and in 8.9% of patients the ostomy had to be remade. Infections of the postoperative wound (33.8%) were the most common complication. The independent risk factors of the postoperative morbidity were obesity ($p<0.001$) and cancer disease as the reason of the primary procedure ($p<0.05$). There was a correlation between the complication rate and the ASA scale ($p<0.001$), WBC ($p=0.02$), and the number of previous surgeries ($p=0.006$). Elevated BMI was an important risk factor of morbidities ($p<0.001$), longer time of surgery ($p=0.006$), time of hospitalization ($p=0.027$) and period between the surgery and restoration ($p=0.035$). BMI ? increases the risk of post operative wound infection ($p<0.001$) and obstruction ($p=0.008$).
CONCLUSIONS: Intestinal tract restoration surgeries are associated with a high morbidity rate. The relevant risk factors are increased BMI, cancer disease, the number of previous surgeries, cardio-respiratory capacity, and WBC. To decrease the complications rate it is suggested to reduce the patient body mass.
ADD: This paper is approved by Local Ethical Committee.

Effects of vitamin D supplementation in a population of young, healthy women with deficiency of vitamin D

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INTRODUCTION: Vitamin D and calcium are necessary for proper modelling and remodelling of osseous tissue and optimal bone mass depends on their appropriate supplementation.
PURPOSE: The goal of the study was an evaluation of serum vitamin D concentrations in 67 healthy women, aged 20-30 years plus the effects of calcium (500 mg) and vitamin D (1500 IU) administration for 3 months in women with baseline values of vitamin D concentration <20 ng/ml. Additionally, calcium and PTH concentrations were assessed at the study onset and after the 3-month supplementation.
METHODS: (with purpose)
RESULTS: The mean vitamin D concentration in the entire study group was 16.55 ng/ml, being 12.6 ng/ml in the group with the baseline value <20 ng/ml. In the course of vitamin D administration, its concentration increased after 3 months statistically significantly ($p<0,001$). Although there were no statistically significant differences in calcium concentration, either at study onset or after the 3 months of its administration, a statistically significant drop of PTH was observed ($p<0.05$).
CONCLUSIONS: A deficiency of vitamin D3 was observed in the studied population of young women. A supplementation with calcium plus vitamin D brought about an increase of vitamin D concentration in the D <20 ng/ml group in the course of therapy. The optimal concentration of >30 ng/ml was achieved in that group after 3 months of vitamin D administration in the 1500 IU/d dose.
Normalisation of vitamin D3 concentrations in the age group of 20-30 years is very important, taking into account the severe deficit of this vitamin in this population. Appropriate supplementation programmes may support the process of building optimal bone mass in this age group.
ADD:

ANALYSIS OF "HYGENIC THEORY" OF CHRONIC DISEASES IN PATIENTS WITH TYPE 1 DIABETES IN POPULATION OF LODZ REGION

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INTRODUCTION: In recent years there has been a significant increase in the number of patients with diabetes, including those with type 1. Therefore, numerous studies are underway evaluating the possible factors underlying this trend. Some studies suggest that better sanitary conditions and lack of contact with microorganisms (so-called hygienic etiology of chronic diseases) might be important thus increasing the risk of disease in firstborns. It is also postulated that siblings could play an important role in the transmission of viruses, bacteria or parasites, which by stimulating the immune system may prevent the development of autoimmune diseases such as type 1 diabetes, asthma and atopic dermatitis. Current data on this issue, however, are still inconclusive. Furthermore, the information concerning type 1 diabetes are particularly insufficient.
PURPOSE: The aim of the study was to evaluate data in patients with type 1 diabetes and their siblings.
METHODS: A group of 469 patients with type 1 diabetes was selected. The study population was composed of 245 adults aged 19 to 65 years (median 19 years) and 224 youth patients aged 2 to 18 years (median 7 years). Information such as age, age at the diagnosis of diabetes, as well as the duration of the disease were evaluated. Moreover, data such as number of siblings, sex, birth order and age at the diagnosis of diabetes among the siblings were also compared.
RESULTS: In the studied population, 4.5 % were only children, and less than a third (30.3 %) patients came from large families (with 3 or more children). In the entire cohort, 39.7 % were firstborns. Subjects from families, in whom more than one child suffered from diabetes, represented 4.3 % in the examined group. Among 9 patients with twin sibling, in 5 cases diabetes was diagnosed in both of the twins. Younger siblings of the opposite sex than older ones developed type 1diabetes more often in comparison to the siblings of the same sex.
CONCLUSIONS: In the patients suffering from type 1 diabetes from the Lodz region, no superiority of the firstborns was observed. Therefore, the theory of hygienic etiology of chronic diseases in this population was not confirmed. However, there is still a need for further research in this field in order to search for possible causes of the alarming upward trend in the incidence of type 1 diabetes.
ADD: This paper is approved by Local Ethical Committee.

Photodynamic reaction with phtalocyanines (Aluminum 1,8,15,22-tetrakis(-phenylthio)-29H,31H-phthalocyanine chloride and Phthalocyanine green) enhanced by electroporation in human gastric cancer cell lines

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INTRODUCTION: Electroporation (EP) is one of the most recent methods of treatment of cancers based on the application of electromagnetic field on cells in vitro. A high-voltage pulses cause the formation of temporary pores in the cell membrane which create an additional way for the intracellular drug transport. EP has been merged with the already known photodynamic therapy to selectively deliver photosensitizers to diseased tissue. The application of electroporation can reduce the dose of cytostatics/photosensitizers. In the case of drug-resistant cancers in which the dose of medication that

reaches the cells are limited, usage of EP gives positive effects. It also reduces the need for surgical intervention.
PURPOSE: The aim of research was to evaluate the effectiveness of photodynamic therapy using cyanine combined with electroporation in human cell lines derived from gastric cancer.
METHODS: Two human cell lines - EPG85-257P (parental) and EPG85-257RDB (resistant to doxorubicin) - of gastric cancer were used. MTT (tetrazolium salt) was introduced to analyze the impact of EP and PDT. Moreover the effect of two photosensitizers (Aluminum 1,8,15,22-tetrakis(-phenylthio)-29H,31H-phthalocyanine chloride and Phthalocyanine green) was investigated. Cyanine localization was determined by confocal microscopy.
RESULTS: PDT in combination with EP affect the viability of EPG85-257P and EPG85-257RDB cells negatively while both cyanine were used. The most evident changes were observed in the following concentrations: 15, 10 and 5ÂĽm. Optimal field strength is 800 and 1200 V/cm. Aluminum cyanine localized selectively in the lysosomes of parental cells.
CONCLUSIONS: EP combined with PDT causes higher mortality than the application of PDT alone. Both cyanine operate effectively in the presence of electroporation. Due to the low concentration of light-sensitive compounds and safety of electroporation itself a treatment plan can be a robust line of defense in the fight against stomach cancer.
ADD: This work is a part of the doctoral thesis.

Exacerbation of negative attitudes to the legitimacy of mandatory vaccination in Polish society.

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INTRODUCTION: The cooperation with parents is required to carry out vaccinations among children without any interference. Unfortunately, due to the negative opinions about vaccinations, the increasing number of parents give up the vaccination or delay an administration of the next vaccination dose to their child.
PURPOSE: The aim of the study was to investigate the opinions of parents on the legitimacy of compulsory vaccination in Poland.
METHODS: The study involved 101 people, with children aged up to 6 years. The study was carried out in the form of a proprietary survey, conducted mainly in the vaccination points, preschools
RESULTS: 80.2% of parents consider that vaccinations should be still mandatory in Poland but 19.8% is for discontinuing it. 19.8% of respondents sometimes do not obey deadlines to vaccinate their children. 9.9% of the respondents confirmed the occurrence of postvaccinal side effect in their child. The physician were talking about vaccinations with only 12.87% of the parents. Most people as a source of information about immunization indicated the Internet (89 respondents), friends (80) and physicians (22).
CONCLUSIONS: Almost 20% of the parents do not agree with maintaining of obligatory vaccinations in Poland. The predominant source of information about vaccinations for respondents are materials available in the Internet and opinions of friends.
ADD: This paper is approved by Local Ethical Committee.

Prognostic value of copy number variations within 9p21 region in pediatric acute lymphoblastic leukemia (ALL)

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INTRODUCTION: Background: Molecular pathogenesis of pediatric acute lymphoblastic leukemia (ALL) is defined by specific copy number variations including deletions in 9p21 region which encompasses MIR31, CDKN2A and CDKN2B. Prognostic value of these genetic alterations needs to be revised in the context of coexistence of deletions in other genes such as IKZF1, ETV6, PAX5, BTG1, CRLF2.
PURPOSE: To assess prognostic value of copy number variations within 9p21 region in pediatric ALL.
METHODS: We analyzed copy number variations in selected genomic loci using MLPA (Multiplex Ligation-dependent Probe Amplification, MRC Holland, P202 and P335 kits) on DNA samples extracted from bone marrow collected at diagnosis of childhood ALL. Data mining analysis technique (â□□Association analysisâ□□) was used for evaluation of coexistence of non-random patterns of factors. We analyzed overall survival and event-free survival with reference to genetic alterations as well as clinical features of these patients.
RESULTS: We analyzed 299 samples , 86 of them (33%) were positive for deletions in region 9p21: 20 showed deletions (7,66%) of CDKN2A , 36 (13,79%) CDKN2A and CDKN2B, 27 (10,34%) CDKN2A, CDKN2B and MIR31, 3 (1,15%) CDKN2A and MIR31. The deletion of MIR31 was significantly associated with the deletion of both CDKN2A and CDKN2B. The support and lift values of detected associations between deletions in 9p21 region and IKZF1 and ETV6 were 11.63 and 1.90 and 9.97 and 1.79, respectively. These findings were confirmed by Chi2 statistics - concurrent deletions in 9p21 and ETV6 were found in 35 (15,15%) cases (p-value=0.00004) and concurrent deletions in 9p21 region and IKZF1 were found in 30 (10,03%) cases (p-value=00004) . The deletions of IKZF1 had the strongest influence on both OS and EFS. Coexistence of deletions in 9p21 region with IKZF1 and ETV6 showed no impact on both OS and EFS of paediatric ALL patients.
CONCLUSIONS: We found that the deletion of MIR31 may be a valid indicator of large deletions in 9p21 encompassing simultaneously deletions of CDKN2A, CDKN2B and MTAP. We also found that deletions in this region are commonly associated with CNV's of ETV6 and IKZF1 genes. However there was no significant association between deletions within 9p21 region and clinical outcome.
ADD: This paper is approved by Local Ethical Committee.

Assessment of health status of infants born of in vitro fertilization (IVF) compared to naturally conceived ones.

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INTRODUCTION: There has been a heated discussion concerning IVF for a number of years in Poland. It is suspected that there is a difference between the health status of infants conceived as the result of in vitro and those born of in vivo fertilization.
PURPOSE: The aim of this study is to assess whether IVF is a single risk factor for the infants' worse health status.
METHODS: A group of patients having in vitro fertilization admitted to Departament of Perinatology of Madurowicz Memorial Hospital in Ĺ□ĂłdĹş between 2011 and 2013 was selected (group A). They were primiparae with no risk factors for the infant abnormality (n=31). Each of the women was then matched with two primiparae who gave birth to naturally conceived infants (group B) based on parametres including age, method of birth and week of pregnancy in which the women gave birth. Possible negative markers, such as the mothers' illnesses, alcohol drinking or tobacco smoking and complications during pregnancy were also taken into account (n=62). Birthweight and body length of infants from both groups (A and B) were then measured. In addition, the results of arterial blood gas analysis were compared (where recorded in hospital documentation) (n=34).
RESULTS: Average birthweight in group A was 3298g whereas in group B it was 3360g (p=0.46). Most infants in both groups scored between 25-50 and 50-75 percentile as far as birthweight and bodyweight are concerned. However no statistically significant difference between the two groups was observed (p=0.60).
On average, pH level of arterial blood in group A was indeed lower than that of naturally conceived infants (p=0.03). No statistically significant difference was observed in the level of pO2(p=0.84). pCO2 of group A infants is higher than that of naturally conceived infants, the difference was insignificant (p=0.13).
CONCLUSIONS: Despite slightly lower birth parametres recorded in case of IVF infants, no significant differences between

that group and naturally conceived infants was proven. Therefore, assumption that health status of infants differs due to the method of fertilization, cannot be stated.
ADD:

Serum 25-hydroxyvitamin D deficiency in acute cerebral strokes' patients with and without carbohydrate metabolism disturbances in north-eastern part of Poland.

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INTRODUCTION: The pleiotropic effects of vitamin D extend to control many physiological and pathophysiological processes in the human body. One of them is involved in the protective process of the nerve cells during stroke as well as pathogenesis of type 2 diabetes. Serum 25-hydroxyVitamin D concentration less than 20 ng/ml indicating Vitamin D deficiency which is common in Poland.
PURPOSE: The aim of the present study was to estimate serum level of 25-hydroxyVitamin D in acute ischemic strokes' patients with and without carbohydrate metabolism disturbances in north-eastern Poland.
METHODS: We examined 59 patient with acute ischemic cerebral stroke admitted to the Department of Neurology in 2011-2013: 36 with carbohydrate metabolism disturbances and 23 without diabetes and prediabetes. Subjects underwent clinical and anthropometric assessment and blood tests were taken for measurement of 25-hydroxyVitamin D, fasting glucose, creatinine, calcium and phosphorus.
RESULTS: The mean age of participants was 66.1 (range 42-82). The mean and SD (standard deviation) of 25-hydroxyvitamin D in strokes' patient in entire group was very low 8.1 ng/ml Âą 6.8 ng/ml. Mean 25-hydroxyvitamin D concentration in patients with carbohydrate metabolism disturbances was also below recommended level: 8.6 ng/ml (SD 6.1). Patients without carbohydrate metabolism disturbances had also very low concentration of 25-hydroxyVitamin D: 7.2 ng/ml (SD 7.7). We did not observe a significant difference between concentration of 25-hydroxyVitamin D in studied groups (p=0.43). Moreover, fifty percent of the patients had calcium level below the range norm.
CONCLUSIONS: Patients with acute ischemic cerebral stroke, with and without carbohydrate metabolism disturbances, should have supplementation of vitamin D, in north-eastern part of Poland.
ADD:

The Lys751Gln polymorphism of XPD gene and risk of colorectal cancer in the Polish population.

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INTRODUCTION: Colorectal cancer (CRC) is considered as common cause of death in the last decade. It has been proposed that multi-stage character and complexity of CRC development may be associated with interaction between environmental and genetic factors. Carcinogenesis pathway is strictly connected with genomic instability, activation of proto-oncogenes and silencing suppressor genes. It has been also found that DNA repair play a key role in protection against development of cancer by keeping stability of genome. However, occurrence of single nucleotide polymorphisms of genes whose components are involved in process of DNA repair may contribute to decreasing of DNA repair efficacy. In this study the

Lys751Gln polymorphism of XPD gene (rs 13181) was examined. The protein product of XPD gene belongs to RAD3/XPD helicases` subfamily and has activity of ATP-dependent DNA helicase. Additionally, protein encoded by XPD gene is part of basal transcription factor (BTF2/TFIIH) complex and participates in transcription-coupled nucleotide excision repair process.
PURPOSE: The aim of this study was to evaluate whether the Lys751Gln polymorphism of XPD gene may be connected with the risk of CRC in the Polish population.
METHODS: The study was performed on DNA isolated from peripheral blood samples that was collected from 170 patients with sporadic CRC and 173 age and sex-matched cancer-free control subjects. Genotyping was conducted by using RFLP-PCR (restriction length fragment polymorphism). In order to examine the association between the Lys751Gln polymorphism of XPD gene and the risk of CRC, the distribution of genotypes and frequency of alleles between CRC patients and control subjects was compared.
RESULTS: Comparison of the distribution of genotypes and frequency of alleles of the Lys751Gln polymorphism of XPD gene and analysis of odds ratios (ORs) showed no statistically significant differences between CRC patients and controls.
CONCLUSIONS: The Lys751Gln polymorphism of XPD gene was not associated with risk occurrence of CRC in the Polish population.

This study was supported by grant no. N N403 250340 from Polish Ministry of Science and Higher Education.

ADD: This paper is approved by Local Ethical Committee.

The correlation between the level of carbon monoxide and carboxyhemoglobin with cigarette smoking among the adult population of Lodz. The evaluation of anti-smoking education among cigarette smokers in Lodz.

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INTRODUCTION: Cigarette smoking is the main avoidable cause of death in developed countries. Quitting smoking is the single most important thing that could be done to improve patients' health. Encouraging smoking cessation is one of the most effective and cost effective things that doctors and other health professionals can do to improve health and prolong patients' lives. According to studies measuring the concentration of carbon monoxide in exhaled air and the calculation of the level of carboxyhemoglobin in the blood indicate the exposure to tobacco smoke, that may be helpful in controlling the process of smoking cessation in patients.
PURPOSE: The aim of study was to evaluate anti-smoking education and to assess the correlation between carbon monoxide and carboxyhemoglobin concentration and smoking, number of cigarettes smoked per day and symptoms connected with smoking.
METHODS: As part of the 'Antitobbaco' action carried out in high-schools and shopping centers in Ľ□ĂłdĹş, we conducted a survey evaluating following data: sex, age, weight, years of smoking, symptoms connected with smoking, associated diseases and the possibility and process of smoking cessation. We questionnaire 115 people (84 smokers, 31 male, mean age 44,01 +/- 16,23). The survey was followed by measurement of carbon monoxide in exhaled air and calculation of the level of carboxyhemoglobin in the blood. Statistical analysis was carried out using Statistica 10.
RESULTS: The statistical analysis confirmed that amount of smoked cigarettes (more or less than 20 per day) has influenced the level of carbon monoxide concentration in exhaled air ($p = 0.0003$). Tests also showed correlations with the concentration of carbon monoxide and amount of smoked cigarettes (the correlation coefficient= 0,42) and years of smoking (the correlation coefficient= 0,31). Other results will be presented on the annual 52nd Polish and 10th International Training and Scientific Medical Congress of Student's Scientific Societies and Junior Doctors Juvenes Pro Medicina 2014 in Lodz
CONCLUSIONS: Concentration of carbon monoxide in exhaled air depends on amount of cigarettes smoked per day. This

method may be useful for physicians to control the progress of patients' smoking cessation. More conclusions will be presented on the annual 52nd Polish and 10th International Training and Scientific Medical Congress of Student's Scientific Societies and Junior Doctors Juvenes Pro Medicina 2014 in Lodz
ADD:

Expression of transforming growth factor-beta and its receptor in patient's lower airways with the selected interstitial lung diseases.

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INTRODUCTION: Transforming growth factor-beta is a endogenous substance that regulates cells
growth and its proliferation. It is considered to be the strongest stimulator of tissue regeneration, but is also involved in organs fibrosis, including lungs. Transforming growth factor-beta works not only through receptors type I and II, but also through its helper receptor CD105.
PURPOSE: The aim of this study is to evaluate expression of TGF-Ă and CD105 in normal lungs and in lungs of interstitial lung diseases patients.
METHODS: Levels of transforming growth factor-beta was measured in bronchoalevolar lavage supernatants from patients with pulmonary sarcoidosis, idiopathic pulmonary fibrosis and extrinsic allergic alveolitis concentration by ELISA test. Expression of CD105 was measured using flow cytometry. The expression of CD105 was determined in established cell lines originating from the human respiratory tract: type II pneumocytes (A549) and lung fibroblasts (HLF1).
RESULTS: There is an increased level of TGF-Ă in IPF (33,9Âą5 pg/mL; p<0,05) compared to the control group (23,3Âą1,4 pg/mL). In addition, IPF showed increased percentage of lymphocytes CD105+ in bronchoalevolar lavage supernatant. In pulmonary sarcoidosis and in extrinsic allergic alveolitis expression of TGF-Ă was similar to the control group. CD105 appeared in lung fibroblasts (98%), type II pneumocytes (63%) and alveolar macrophages. In pulmonary sarcoidosis we observed decrease level of CD105 expression (all lymphocytes: 7,2Âą0,6%; lymphocytes Th: 4,6Âą0,4%; lymphocytes Tc: 1,8Âą0,3%) comparing to the control groups (all lymphocytes 13Âą3,4%; Th: 6,6Âą2,6%; Tc: 4,7Âą1,1%, medianÂąSEM, p<0.05).
CONCLUSIONS: In all studied groups the presence of TGF-Ă was showed. Elevated expression of this cytokine and also the increase of CD105+ lymphocytes characterize the IPF disease. CD105 is present in lung fibroblasts, type II pneumocytes and alveolar macrophages, except the lymphocytes from bronchoalevolar lavage. Results confirm the negative role of TGF-Ă molecule in pulmonary fibrosis.
ADD: This paper is approved by Local Ethical Committee.

Association of the Lys939Gln polymorphism of XPC gene with risk of colorectal cancer in the Polish population.

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INTRODUCTION: Exposure to various environmental and endogenous carcinogens may cause various DNA alterations and disturbances in DNA repair process that may lead to genomic instability. Process of DNA repair may be considered as first defense line against development of cancer. Occurrence of single nucleotide polymorphism (SNP) in gene whose component participates in DNA repair may trigger to the changes in the DNA repair efficacy. In this study association between the

Lys939Gln polymorphism of XPC gene (rs 2228001) and risk of colorectal cancer (CRC) was investigated. XPC gene encodes component of nucleotide excision repair (NER) process. This component play a crucial role in the early stages of NER, especially in recognition of damage, formation of open complex and repair protein complex.
PURPOSE: The aim of this study was to investigate association of the Lys939Gln polymorphism of XPC gene with risk of CRC in the Polish population. Obtained results may indicate whether the Lys939Gln polymorphism of XPC gene may be one of susceptibility factor to CRC in the Polish population.
METHODS: DNA was isolated from peripheral blood samples of 161 sporadic CRC patients and 172 age and sex-matched cancer-free control subjects collected in Department of General and Colorectal Surgery. The Lys939Gln polymorphism of XPC gene was analyzed by using RFLP-PCR (restriction length fragment polymorphism) method. Finally, the distribution of genotypes and frequency of alleles between CRC patients and control subjects was compared.
RESULTS: Comparison of the distribution of genotypes and alleles` frequency of the Lys939Gln polymorphism of XPC gene and analysis of odds ratios (ORs) showed statistically significant differences between CRC and control subjects. The distribution of Gln/Gln genotypes demonstrated a significant increased CRC risk (p=0.013; OR= 2.364; 95% CI=1.250-4.470) and Gln allele increased CRC risk (p=0.007; OR=1.530; 95% CI=1.122-2.086).
CONCLUSIONS: Obtained results indicate that the Lys939Gln polymorphism of XPC gene is associated with risk of CRC. Therefore, the Lys939Gln polymorphism of XPC gene may be one of susceptibility factor to CRC in the Polish population.

This study was supported by grant no. N N403 250340 from Polish Ministry of Science and Higher Education.

ADD: This paper is approved by Local Ethical Committee.

Is it possible to predict the beneficial effect of Cardiac Resynchronization Therapy (CRT) on the basis of ECG?

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INTRODUCTION: Heart faliure (HF) is a common problem in clinical practice. Patients (PT) with chronic HF may require cardiac resynchronization therapy (CRT), even though they are optimally treated pharmacologically. Adequate qualification for implantation has important impact on its effectiveness and ECG is one of the basic criteria concerned.
PURPOSE: The aim of the study is to assess whether based on ECG used to qualify for CRT implantation, one can predict the beneficial effect of cardiac resynchronization therapy, defined as an increase in left ventricular ejection fraction (LVEF) ? 10% compared to the LVEF before implantation.
METHODS: A retrospective analysis of 61 ECGs obtained from patients (PT) who underwent CRT implantation in the Department of Electrocardiology in 2010-2013 period, all of which had echocardiography performed 3 months after implantation and then were divided into two groups according to the relative increase in LVEF ? 10% responder (33 pts) and non--responder (28 pts). ECG parameters that undergone Statistical analysis: Left Ventricle activation time (LVAT), the time from the beginning of the R wave to the peak of S-wave in V1 (V1 RS interval), QRS width > 150 ms and LBBB, QRS width > 150ms and NON LBBB, the PR interval in I, II, V1 and measured automatically (PRaut) using logistic regression models and analysis of variance (ANOVA) for repeated measurements.
RESULTS: Studied group comprised of 9 females, 52 males, mean age of 67 - 33 responders and 28 non-responders. No predictive value was proven for LVAT, RS V1 interval, non LBBB with QRS> 150 ms. Study proved that the occurrence of the QRS> 150 ms NON LBBB morphology in ECG is predictive factor for response to theraphy (OR 1.79 95% CI 1.026-3.137, p = 0.04). Analysis of variance for repeated measurements with p = 0.05 proved that the responder group is associated with longer PR interval in leads I, II, V1 and PRaut. Post-hoc Tukey test demonstrated that responders achieved greatest values of the PR interval in II, the average value of PRresp = 220ms, average PRnonresp = 195ms. It was proven that the longer PR interval in the II, the greater the chance that the patient will respond (OR 1.020 95% CI 1.003-1.037, p = 0.023).
CONCLUSIONS: The presence of atrioventricular IÂ° block predicts achievement of the beneficial effect of cardiac resynchronization therapy. Coexistence of QRS morphology other than LBBB and QRS width> 150ms is a positive predictive

factor of CRT response.
ADD:

Evaluation of the safety and course during immunotherapy against Hymenoptera venom allergy.

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INTRODUCTION: Immunotherapy (IT) is widely accepted and safe first line treatment for patients being allergic to Hymenoptera venom and the way how we can save their lives in case of stinging.
PURPOSE: The goal of the study was to retrospectively analyse the group of patients who underwent an immunotherapy against Hymenoptera venom with the primary endpoint to evaluate safety and adverse reactions to this method.
METHODS: Following factors were analyzed: sex, symptoms after stings before and during IT, adverse reactions to the IT, levels of sIgE, duration of treatment and total dose of the vaccines. The patients were classified by sex, type of the insect. In the study patient's medical histories from the Department of Internal Disease, Asthma and Allergy were used.
RESULTS: Medical histories of 180 patients, including 146 allergic to wasp venom and 34 allergic to bee venom were analyzed. Fifty subjects undergoing immunotherapy to wasp venom (34%) experienced adverse reactions during IT against wasp, including 38(76%) women and 12(24%) men. Fifteen patients (44%) from 34 patients on bee venom IT, including 10(47%) women and 5(40%) men, experienced side effect. Most of the side effects were local and were reported in 34(68%) patients allergic to the wasp venom and 7(47%) patients allergic to the bee venom. The results suggest that the pattern of side effects is associated with reaction before IT and depends also on the type of insect. The most common side effects during IT for wasp were immediate local reaction, dyspnea, rash and erythema of the skin. Analyzing side effect during IT, patients desensitized to wasp venom more often reported malaise and weakness, and patients desensitized to bee venom reported more events of itch and rhinitis. Ten patients allergic to bee venom and 38 allergic to wasp venom were stung during IT. Most of them didn't report any reaction or reported only mild immediate local reactions. The average sIgE concentration after completed IT decreased by 3,78U/ml for wasp-allergic patients and 4,18U/ml for bee-allergic patients.
CONCLUSIONS: 1.Analysis of the values of sIgE proves sIgE average reduction after IT.
2.VIT is not a method without any side effects, however most of the adverse reactions are local.
3.Analysis of the symptoms after stings during IT proves that most of patients didn't report any reaction or reported only mild local reactions.
ADD:

CORONARY ARTERIES ANOMALIES IN CHILDREN WITH TRANSPOSITION OF THE GREAT ARTERIES AFTER SWITCH OPERATION

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INTRODUCTION: Transposition of the great arteries (TGA) is congenital heart defect with unfavorable natural course, in which a surgical intervention is necessary early on in life of the patient. The essence of this defect is the ventriculoarterial discordance. The aorta emerges from the right ventricle and carries unoxygenated blood from the main veins to the systemic circulation; the pulmonary trunk leaves from the left ventricle and carries oxygenated blood from the lungs into the pulmonary circulation. The current treatment - arterial switch operation performed in neonatal period - includes switch of

the great vessels and coronary artery transplantation thus the coronary anomalies increase the difficulty and force operator to modify the reimplantation sites what may cause the higher risk of severe postoperative complications.
PURPOSE: The aim of this study was to establish the frequency of coronary artery complications after switch procedure and its correlation with coronary anomalies.
METHODS: From the 665 children, who had the arterial switch operation performed in the Cardiology Department of the Polish Mother's Memorial Hospital, 183 consecutive patients were qualified for this study. The inclusion criteria were: anatomical correction performed during the neonatal period and heart catheterization with coronarography performed in postoperative period. The patients' medical records were reviewed retrospectively to gather clinical and echocardiographic data before surgery, during the perioperative period and postoperatively.
RESULTS: The overall mortality was 7,2% and mean clinical follow - up for survivors was 13,5 years (SDÂą2,4). Coronary anomalies were observed in case of 69 patients (37%) in majority of the cases it was Cx emerges from RCA (56%). In case of 10 patients significant proximal coronary stenosis was observed but it was not significantly related with coronary anomalies (p=0,36). 9 patients from this group were asymptomatic with no significant changes in heart scyntygraphy. The presence of anomalies was also not significantly correlated with congenital heart defects associated with TGA(p=0,46).
CONCLUSIONS: Coronary artery reimplantation still remains a great challenge for surgeon, however the development of surgical technique during past 25 years ensures good postoperative effect despite occuring coronary anomalies.
ADD:

Comparison of two-dimensional and three-dimensional speckle tracking echocardiography for the assessment of myocardial viability

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INTRODUCTION: Late-enhancement magnetic resonance imaging (LE MRI) is considered to be the reference method for the assessment of myocardial viability. 2D (two-dimensional) and 3D (three-dimensional) speckle tracking echocardiography (STE) are recently developed quantification techniques that can be used for the objective evaluation of the regional myocardial function.
PURPOSE: The aim of study was to evaluate the diagnostic value of 2D and 3D STE for the assessment of myocardial viability using LE MRI as a reference method.
METHODS: 53 patients (41 male, mean age 60 +/- 10 years) with first acute myocardial infarction treated successfully with primary percutaneous coronary intervention were included in the study. 7-10 days after AMI, all patients underwent transthoracic 2D and 3D resting echocardiography with subsequent measurement of systolic longitudinal strain (SLS) using 2D and 3D STE. Additionally, patients underwent LE MRI with semiquantitative assessment of the thickness of late enhancement region in left ventricular segments.
RESULTS: In the analysis of 727 segments of sufficient image quality from 2D STE and 723 segments from 3D STE, SLS measurements with both techniques had similar diagnostic value for the detection of viability defined as LE extent of ? 75% myocardial thickness by MRI (AUC 0.72 and 0.67, respectively; p=0,23).
When segments with LE ? 50% of myocardial thickness were considered viable, 2D STE had significantly higher diagnostic value for the detection of viability than 3D SLS STE (AUC 0.75 and 0.64, respectively; p<0,001).

CONCLUSIONS: 2D and 3D strain echocardiography with SLS measurements seem to be promising tools for myocardial viability assessment based on resting echocardiography. There is a noticeable trend towards greater diagnostic value of 2D technique compared to 3D.
ADD:

Optimism as a protective factor against anxiety and depression in a group of gynecological patients - preliminary report.

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INTRODUCTION: Gynecological diseases relate to particular spheres of women's lives, which may be associated with depressed mood and experiencing severe anxiety, leading to a deterioration in their quality of life. Studies have shown that patients declared wish to receive information and emotional support such as participation in a support group. Useing various forms of psychological help can improve the quality of patient`s life.
Psychological aspects are very important in the doctor-patient communication. Many researchers draws attention to the benefits of the implementation of an interdisciplinary model of care based on a holistic approach, in which doctors of different specialties collaborate with psychologists . The measures taken are aimed at the best patient care , positive reinforcement and help in the fight against the disease for obtaining full state of health and the maintenance of homeostasis witch is defined as the balance between human resources and stressors that affect them . Disturbance of this balance may lead to the emergence of anxiety and depression. In the face of stressful situations are activated personal resources and strategies aimed to control its adverse effects.
These strategies will depend , of personality traits , temperament and level of education. Currently, it is believed that this is not the same stressor , and coping style (coping strategy) in difficult situations plays a key role in maintaining the homeostasis of the body and ensures human health.
An important resource is optimism that largely correlates with adaptive strategies to cope with stressful situations and health-related behaviors . It was showned that optimism may be related to the quality of life of patients . In her work Miniszewska et al showed that patients with psoriasis characterized by a more optimistic estimate better quality of life. Similar results were obtained by Price, Bell et al in a group of patients suffering from ovarian cancer.
PURPOSE: The aim of the study was to evaluate coping strategies in stressful situations, global optimism and emotional problems in the form of anxiety and depression in patients treated for gynecological diseases.
METHODS: The pilot study was performed in the Clinic of Gynecology and Gynecologic Oncology, Institute of Polish Mother's Health Center in Lodz. 30 of patiens participated in a study.

The following questionnaires were used: Questionnaire coping with stressful situations CISS, HAD scale (anxiety and depression), LOT-R scale (to measure global optimism), and demographic questionare. The results were analyzed using the STATISCTICA 10.0 PL. Using Pearson's correlation r-and descriptive statistics: mean, standard deviation, minimum and maximum values??. Considered statistically significant results at $p < 0.05$.
RESULTS:
The obtained results show that the more optimistic patients feels less fear and depression.

It was noted that patients in stressful situations focused on the emotions were characterized by lower levels of optimism, and a higher sense of anxiety and depression.

In the group of patients feeling of anxiety correlated with the tendency to avoid confrontation with the stressful situation. Greater severity of anxiety in patients resulted in more frequent involvement in activities replacement in difficult situations (watching TV, reading, shopping).
CONCLUSIONS: Proper education on stress management strategies and the implementation of appropriate practices can have a positive impact on the reduction of anxiety and depression in gynecological patients.

ADD: This paper is approved by Local Ethical Committee.

This book originates form Juvenes Pro Medicina 2014 abstract submission system. Juvenes Pro Medicina 2014 was 52nd Polish and 10th International Annual Training & Scientific Medical Congress of Students' Scientific Society and Junior Doctors held between the 8th and the 10th of May 2014 in Lodz. The event was organized by Students' Scientific Society at the Medical University of Lodz (supervisor: prof. Ewa Sewerynek, chairman: Konrad Stawiski). Should you have any questions please visit www.stn.umed.pl or contact us via stn@stud.umed.lodz.pl.

The influence of pet ownership on health and physical activity in dialysis patients.

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INTRODUCTION: Pet ownership is associated with every day involvement in caring for animals. Taking a dog for a walk forces its owner to take additional physical activity, which may be of particular importance for dialysis patients. Numerous studies have explored the relationship between pet ownership and cardiovascular disease, with many reporting benefits.
PURPOSE: The aim of the study was to analyze the influence of pet ownership on health and physical activity in dialysis patients.
METHODS: 270 chronic hemodialysis patients (172 male, 98 female, mean age 62.7Âą14.0 years) participated in a survey that focused on their general health and physical activity. The questions concerned demographic data, duration of dialysis, life related diseases such as hypertension, diabetes mellitus, nicotine dependence. The patients were asked to assess their physical activity, current physical activity and for their pet ownership status. The collected data were analyzed with respect to pet ownership.
RESULTS: Mean time on dialysis was 4Âą5 years. Arterial hypertension was diagnosed in 197 patients (73%), diabetes mellitus in 197 (36%). 53 were smokers (20%). 219 (81%) of the patients were mobile. Osteoarthritis was presented in 78 patients (29%). 116 participants had dog at home (43%). Additional physical activity, was reported by 46 dog owners (40%) compared with 34 (23%) of non-owners (p=0.002). Patients who often go for a walk without the special need, were more often pet owners 49 (57%) than non-owners (n=37, 43%; p=0.004). Non-owners were older than pet owners (58.3Âą13.6 vs. 66Âą13.5 years; p<0.001). Dog owners had longer period of dialysis than non-owners (5.0Âą6.5 vs. 3.5Âą3.7 years; p=0.02). The patients who reported no additional physical activity were older than patients who did report it (65Âą12.4 vs. 58Âą16.6 years; p<0.001). BMI was similar in both groups. Patients with BMI from upper tertile (>27.5 kg/m2) and from lower tertile (<23.9) were more often dog owners than those from the middle tertile (52.9% and 43.7% vs. 31.4%).
CONCLUSIONS: Dog ownership appears most likely to positively influence the level of physical activity among dialysis patients. The age not the time on dialysis seems to be the most important factor which restricts physical activity in dialysis patients and has an influence on the decision on pet ownership.
ADD:

Antinociceptive action of a dimeric enkephalin peptide, biphalin, in the mouse models of visceral pain: new potential treatment of abdominal pain associated with inflammatory bowel diseases

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INTRODUCTION: For centuries opioids were used as potent analgesics to treat moderate to severe pain. Recent studies showed that the opioid receptor-dependent signaling plays an important role in pathogenesis and progression of inflammation. Here we hypothesized that the activation of opioid receptors by selective agonists could be used as an alternative for current treatment in inflammatory bowel diseases (IBD).
PURPOSE: The aim of the study was to characterize the anti-inflammatory and antinociceptive action of a dimeric enkephalin peptide, biphalin (Tyr-D-Ala-Gly-Phe-NH2)2, a potent MOP and DOP opioid receptor agonist, in the mouse models of IBD.
METHODS: We used two mouse models of IBD, acute and semi-chronic, induced by intracolonic (i.c.) injection of trinitrobenzenesulfonic acid (TNBS) on Day 0. Mice were treated with vehicle or biphalin twice daily at the dose of 5 mg/kg intraperitonealy (i.p.) on D0-D2 (acute) and 5 mg/kg i.p. or i.c. on D3-D6 (semi-chronic). On D3 (acute) or D7 (semi-chronic) the macroscopic score of colitis was evaluated.
The antinociceptive action of biphalin (5 mg/kg, i.p.) in inflamed animals was assessed in mustard oil-induced model of

visceral pain. To evaluate the role of opioid receptors in the effect induced by biphalin, the non-selective opioid receptor antagonist naloxone (1 mg/kg, i.p.) was co-administered with biphalin. To assess the action of biphalin in the central nervous system, the antinociceptive effect was evaluated in the hot plate test.
RESULTS: In the semi-chronic mouse model of colitis, biphalin (5 mg/kg, i.c.) improved colitis macroscopic score (2.7Âą0.3 and 4.2Âą0.8 units for biphalin and vehicle treated animals, respectively), but the effect was not statistically significant. Biphalin injected i.p. (5 mg/kg) did not produce any anti-inflammatory effect, but displayed a potent antinociceptive action in the mustard oil-induced pain test (9.8Âą1.1 vs. 51.0Âą8.6 pain-induced behaviors for biphalin vs. vehicle treated mice, respectively). The antinociceptive effect was reversed by naloxone, indicating opioid receptor-mediated mechanism. In the hot plate test, biphalin (5 mg/kg, i.p.) produced a potent antinociceptive activity in inflamed mice, suggesting central site of action.
CONCLUSIONS: Our data suggest that biphalin may become a novel opioid-based analgesic agent in IBD therapy and warrant further investigation of its pharmacological profile.
ADD: This paper is approved by Local Ethical Committee.

Clinical symptoms in gynecologic cancers.

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INTRODUCTION: The early diagnosis in gynecologic oncology is crucial for effective treatment of patients. The knowledge of main symptoms typical for cancers arising from the endometrium, ovaries and uterine cervix is necessary for young doctors.
PURPOSE: To find the most common symptoms of the endometrial cancer, ovarian cancer and cervical cancer, and to assess the relationship between the symptoms and beginning of oncologic treatment.
METHODS: Between 2013-2014 the questionnaire survey was conducted among 119 patients attended Oncologic Radiotherapy Outpatient Clinic of the Copernicus Memorial Hospital of ŁĎŘłdŁş. The voluntary questionnaires were filled during control visit. The questionnaires were composed from 10 questions characterizing initial symptoms, the duration of period from onset of the symptoms to diagnosis and presence of the co-morbidities. The data were statistically elaborated.
RESULTS: The number of patients with endometrial cancer, ovarian cancer and cervical cancer was 75, 11 and 33, respectively. In endometrial cancer patient the most common symptom was abnormal uterine bleeding 66.7% (n=50) and only 6,7% (n=5) from these patients were asymptomatic. Among ovarian cancer patients, 27.3% (n=3) was asymptomatic, and there was not one characteristic symptom. Patients with cervical cancer often presented vaginal discharge 39.4% (n=13), abnormal uterine bleeding 39.4% (n=13) and pain 30.3% (n=10). Another symptoms were found less common. The period from onset of the symptoms to the beginning of diagnosis process of the cancer in the group with endometrial cancer was nearly 4 months. In the group with ovarian cancer it was 5.5 months and with cervical cancer over 3.5 months. In the group with endometrial cancer 41.3% patients were obese and 53.3% patients presented hypertension. Obesity and hypertension were not connected to cervical and ovarian cancer.
CONCLUSIONS: Abnormal uterine bleeding was the most common and early symptom of endometrial cancer. The symptoms found in ovarian cancer and cervical cancer were less characteristic making early diagnosis more difficult, and late proper treatment.
ADD:

Vasectomy, male involvement in family planning in Rwanda

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INTRODUCTION: Rwanda is among the most densely populated countries in Africa, with a total fertility rate of 5.4 births per woman, growth rate of 2.4%, and contraceptive prevalence of only 52%. Recently, interventions around the globe have enabled men to more openly discuss family planning with their partners by increasing basic reproductive health knowledge and awareness of services, combating negative gender norms and helping men develop the vocabulary and approaches to have a thoughtful discussion about family planning. Rwanda chose to include vasectomy to expand their family planning strategy in order to reinforce people's rights to determine the number and spacing of their children.
PURPOSE: This study is intended to explore the awareness, feasibility and effectiveness of vasectomy in Rwanda.
METHODS: Data from Rwanda demographic and health survey and reports from fhi360 on implementation of vasectomy were retrospectively accessed.
RESULTS: Since the program started in 2009, more than 2900 men have undergone vasectomy, an average of 800 men per year. Men were on average 45 years old, had been married for 17.9 years, had 5.2 children, and 32% of the participants had a young child under 1 year. 87% had used other birth control methods and 66% returned for semen analysis and there were no failures. Average recovery time was 3 months and 13% of patients reported minor post-procedure side effects such as abdominal soreness and swelling. Vasectomy rate positively correlated with family size, financial constraints and effects of hormonal methods (wife).
CONCLUSIONS: Vasectomy is an easy, safe and cheap birth control method which is gaining higher acceptance in Rwanda .Research projects should be implemented; to make strategies that successfully overcome constraints imposed by providers and to understand medical barriers to family planning service provision. Following an in-depth analysis of results; Awareness can be raised through community meetings, radio and messaging alert systems, postpartum couples counseling and health care providers to expand the access.
ADD: This paper is approved by Local Ethical Committee.

Antidepressant-like activity and the influence on cortisol level of HBK-10 after chronic treatment and in the mouse model of depression induced by corticosterone.

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INTRODUCTION: Most of the drugs used in the treatment of depression modify monoamines concentration in synaptic cleft, and interact with central noradrenergic and serotonergic transmission, what often results in receptor down-regulation. Postsynaptic 5-HT1A serotonergic receptor in hippocampus is one of the structures that undergoes a reverse process. Previous studies demonstrated that HBK-10 is a 5-HT1A receptor agonist, which showed a significant antidepressant-like activity in forced swim test (FST) and the tail suspension test in mice. As many studies suggest there is a link between hyperactivity of HPA axis and the occurrence of depression. This is the basis of our current research evaluating the activity of HBK-10 in mouse model of depression induced by corticosterone.
PURPOSE: The aim of the study was to determine antidepressant-like activity of HBK-10 after acute and chronic treatment, and in the mouse model of depression induced by corticosterone. Moreover, we want to evaluate its influence on cortisol level after chronic treatment in mice. Most of the medicines used in depression therapy lead to weight gain, thus we decided to determine the influence of HBK-10 on body weight of mice.
METHODS: Studies were performed on male mice (CD-1). HBK-10 was administered at two doses: 0.625 and 1.25 mg/kg. To induce the model of depression in mice, corticosterone at the dose 20 mg/kg was injected for 21 consecutive days. Control groups received methylcellulose. FST and locomotor activity test were performed.
RESULTS: We obtained astonishing results. Acute treatment with HBK-10 at the dose 1.25 mg/kg leads to statistically significant reduction of immobility time in FST but do not affect it after chronic administration. Conversely, twice lower dose: 0.625mg/kg shows antidepressant-like activity only after chronic treatment. HBK-10 given at both doses does not affect

spontaneous locomotor activity and body weight in mice. The unexpected results we obtained arouse our deeper interest in HBK-10 therefore further studies are in progress.
CONCLUSIONS: HBK-10 shows antidepressant-like activity after both acute and chronic treatment in FST in mice. Moreover, it does not affect mice body weight. We are in the course of developing the mechanism of action and current studies suggest involvement of both noradrenergic and serotonergic transmission. Supported by Jagiellonian University Student's Grant 08/13.
ADD: This paper is approved by Local Ethical Committee.

Evaluation of the character and intensity of symptoms after Nasal Provocation Test in patients with allergic rhinitis.

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INTRODUCTION: One of the most common medical procedures used to diagnose allergic rhinitis is Nasal Provocation Test (NPT). Symptoms of allergic rhinitis are: sneezing, itching, rhinorrhea and nasal obstruction. The purpose of NPT is diagnosis of nasal mucous membrane hypersensitivity to allergen and determining its character and quantity.
PURPOSE: The main aim of the research was an evaluation of the relationship between allergen used to NPT and type and intensity of symptoms after NPT in patients with allergic rhinitis.
METHODS: 104 patients (58 women and 46 men) were classified for a retrospective analysis. Research material contained: cause of NPT, type of used allergen and results of provocation. Evaluation contained: character and intensity of symptoms before nasal provocation test, after placebo and after using allergen. Information from medical history used in research, was made by doctors who work in Department of Internal Medicine, Asthma and Allergy of Medical University in Ĺ□ĂłdĹş.
RESULTS: The most frequent allergen used to NPT was Alternaria(41,75%) and Dermatophagoides pteronyssinus (14,56%). NPT was negative in 70 patients (67,96%) and positive in 33 patients (32,04%). Among all the patients 16 of them (19,75%) felt nose itching before test, 27 patients (33,33%) felt itching after placebo and 43 patients (53,09%) had such symptoms after using allergen. Before NPT 3 patients (3,7%) had dyspnea, after placebo 2 patients (2,47%) and after Provocation 5 patients (6,17%). Average result in VAS scale among patients complaining to rhinorrhea was: before provocation test 7 points, after placebo 5 points and after test 20 points.
CONCLUSIONS: Nasal Provocation Test with specific allergen is valuable medical test, which allows evaluation of symptoms after using allergen in patients with allergic rhinitis. Positive result in provocation allows doctors to confirm occurrence of hypersensitivity.
ADD:

EXERCISE - INDUCED BRONCHOSPASM IN OVERWEIGHT ADOLESCENT CHILDREN.

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INTRODUCTION: Overweight is one of the biggest health problems in world called â□□epidemic of 20th centuryâ□□. Lot of research shows that overweight may continue to be cause for concern in XXI century. Relationship between overweight and exercise - induced bronchospasm has never been analyzed in natural environment in children.
PURPOSE: The main aim of the research was prospective analysis of frequency of exercise - induced bronchospasm in

overweight children (Body Mass Index (BMI): 85-95 percentile).
METHODS: Prospective research analyses individual factors and results of spirometry before and after exercises in 178 children (89 overweight children - study group and 89 children - control group) from 7 middle schools in ĹĎĂłdĹş. Adolescents participated in 45 minutes physical education lesson in natural environment. Exercise - induced bronchospasm was diagnosed by decrease of the forced expiratory volume in 1. second (FEV1) at least 10% after exercises (?FEV1?10%). This study was supported by the National Science Centre (NCN) grant number UMO-2012/07/B/NZ5/02684.
RESULTS: In the group of overweight children, 14 (15,73%) had ?FEV1?10% - 12 (13,48%) between 10% and 25% of initial value, in 2 (2,25%) between 25% - 50% of initial value. Cough after exercises was observed in 11 (12,36%) and 3 (3,37%) have been diagnosed with asthma. In the group of overweight children influence of FEV1 decrease at least 10% of value due on cough presence was detected (?2(1)=4,031; p=0,045). In the group of children with proper BMI: 7 adolescents (7,86%) after exercises had ?FEV1?10% - in 6 children (6,74%) between 10% and 25% of initial value and in 1 child (1,12%) between 25% and 50% of initial value. Cough after exercises was observed in 9 adolescents (10,11%); 7 children have been diagnosed with asthma (7,86%).
CONCLUSIONS: Results of the research reveal greater frequency of exercise - induced bronchospasm in overweight children in comparison to group with normal weight. Cough is much more frequent symptom of bronchospasm in overweight adolescents. There is a need to lose weight in overweight patients, in order to increase lung efficiency and to improve the quality of life.
ADD: This paper is approved by Local Ethical Committee.

The influence of of TV campaigns on health-care awareness of rural residents on the example of Rzeczyca region

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INTRODUCTION: In recent years, the media have undergone huge transformation and increased their accessibility for all citizens, however television still remains the most popular source of information. Most people spend in front of the TV screen from 3 to 5 hours daily. This knowledge may increase the level of use of healt-related campaign to influence on awareness of health. TV Advertisements are created mostly to promote products and as an implementation of consumption. But they are also use to transfer a value information about awarness of health and health education.
PURPOSE: Main purpose was to examinate awarness of health the citizents of Rzeczyca region and the influenc of television pro-health campaign on that awarness. In that purpose we examined a group of 100 volunteers in diferent ages living in the Rzeczyca region.
METHODS: The Research tool was questionnaires containing pro- and anti-health question, also contained question about viewership and effectiveness of emitted in television health campaigns interviewed with the citizens of Rzeczyca region.
RESULTS: Only 9% of examination population declares consumption of fish twice (and more) in a week, about 10% of examination population do not eat fish. Almost 72% participators declares their physical activity, but only 46% exercise regulary three times a week for 30 minutes each time. Last examinated aspect was participation in screening - only 15% of population undergo screening in Rzeczyca region.
CONCLUSIONS: Citizens of Rzeczyca region have a low health awarness
Pro-health campagine emitated in TV have a very weak influence on health awarness
For the most of the examinated population pro health comercials are effectivless. The only effective campagin was â□□PiĹ□eĹ□? Nie jedĹş!â□□ however more than 90% of examinated drove a car under the influence of alkohol or with the drunk passangers.

ADD: This paper is approved by Local Ethical Committee.

Treatment results and prognostic factors in patients with secondary acute myeloid leukemia.

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INTRODUCTION: The secondary acute myeloid leukemia (sAML) is defined as a leukemia related to previous chemo (Tx) - and radiotherapy or a leukemia preceded with a previous history of myelodysplastic syndrome or myelodysplastic/myeloproliferative neoplasm. The diagnosis of the secondary AML is burdened with a poor prognosis.
PURPOSE: An assessment of outcome and prognostic factors in patients (pts) with sAML.
METHODS: A retrospective analysis of pts with sAML treated in the Department of Hematology, Lodz in 2007-2013 was performed. According to PALG protocols fit patients were randomly assigned to DA first line therapy consisting of daunorubicine and cytarabine (Ara-C) or DAC (DA + cladribine) or DAF (DA + fludarabine). If indicated, allogeneic stem cell transplantation (alloHSCT) from matched related or unrelated donor was performed. Unfit patients received low-dose (LD) Ara-C or best supportive care (BSC).
RESULTS: Thirty five patients with sAML with median of age 61 (27-83) were included to the study. Cytogenetic risk according to the SWOG classification was low in 45,7%, intermediate 2,9%, high in 31,4%, unknown in 20% of patients. Median (Me) WBC count, hemoglobin level (HB) and platelet count (PLT) at the diagnosis were respectively 15,62 x10'3/Âľl (1,33-251,97); 8,1 g/dL (4,0-13,9) and 41 x10'3/Âľl (9-231). Me % of blasts in the BM at the diagnosis was 41% (2-73). In 82,8% of cases the diagnosis was preceded by hematologic neoplasms, in 17,2% by solid cancers (the most frequent was breast cancer in 8,6%). In 14/35 (40%) pts the intensive induction Tx (group 1), in 8/35 pts (22,9%) low-dose Ara-C (group 2) and in 7/35 pts (20%) BSC (group 3) was given.
11/14 intensively treated pts (78,6%) achieved complete remission (CR). CR rate in pts who received induction Tx with and without purine analogues was comparable (71% vs. 85% respectively). In 3 pts intensively treated after CR assessment alloHSCT was carried out. Me DFS was 229 (10-2047) days. None of the non-intensively treated pts achieved CR. Me OS for group 1 was significantly longer than in less intensively treated pts (group 2+3) (281,5 vs 42,5) days ; p 0.013). AlloHSCT was the only factor associated with higher probability of long survival in intensively treated pts.
CONCLUSIONS: This study shows that intensive induction Tx with subsequent alloHSCT improves survival in sAML compared to LD-Tx. The addition of purine analogues to standard induction Tx does not improve the CR rate in sAML.
ADD:

Leukocyte Sirtuin 1 mRNA overexpression is associated with Gestational Diabetes Mellitus (GDM)

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INTRODUCTION: Sirtuin 1 (SIRT1), a NAD+-dependent deacetylase, has been implicated as a key regulator of glucose/lipid metabolism, insulin secretion as well as adiponectin production and inflammation in metabolic disorders, including type 2 diabetes mellitus (T2DM). However, its role in gestational diabetes mellitus (GDM) remains widely unknown.
PURPOSE: The aim of this study was to determine whether leukocyte SIRT1 mRNA expression is altered in GDM women in the third trimester of pregnancy, and whether this change is correlated with clinical characteristics of patients.
METHODS: Leukocytes were isolated from the blood of GDM (n=135) and normal glucose tolerant (NGT; n=52) pregnant women. After extracting RNA from leukocytes, a quantitative real-time polymerase chain reaction (qRT-PCR) approach was performed to assess SIRT1 gene expression in these cells. Univariate regression analyses were applied to investigate correlations between SIRT1 expression and clinic parameters of patients.

RESULTS: Leukocyte SIRT1 mRNA was increased by a 1.7-fold in the GDM vs. NGT subjects (P=0.001) and it positively correlated with 2h glucose concentration during oral glucose tolerance test (OGTT) in the whole study group and negatively correlated with pregnancy age in the GDM and NGT groups. The positive association was also observed between SIRT1 mRNA and plasma high density lipoprotein (HDL) cholesterol level in the NGT subjects.
CONCLUSIONS: GDM is accompanied by leukocyte SIRT1 mRNA overexpression associated with hyperglycemia. Additionally, there is a close and beneficial relationship between enhanced leukocyte SIRT1 expression and increased plasma HDL-cholesterol level during normal pregnancy.
ADD: This paper is approved by Local Ethical Committee., This work is a part of the doctoral thesis.

A survey of energy drink consumption patterns among students IV and V year faculty of medicine in Medical University of Lodz.

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INTRODUCTION: Energy drink consumption has continued to gain in popularity since 1997 - the debut of Red Bull, the current leader in the energy drink market. The usage of energy drinks, due to the high content of stimulants, must be controlled. Drinks of this type can cause many adverse symptoms, including: dehydration, insomnia, and insulin resistance, accelerate the heart rate and increase blood pressure, cause headaches, neurological disorders or potentiate the effects of other drugs such as alcohol, increasing its absorption. Although energy drinks are targeted to young adult consumers, there has been little research regarding energy drink consumption patterns conducted on students.
PURPOSE: Evaluation of the frequency of energy drink consumption in students, determination of the motives for consumption and brands preferred. Particular attention was paid to the incidence of adverse reactions and the kind of side effects associated with the consumption.
METHODS: Anonymous questionnaire surveys were conducted among 131 students of IV and V year faculty of medicine in Medical University of Lodz. Women accounted for 67.18% (88 students) of the total number of respondents and males 32.82% (43 students). The study was conducted using a questionnaire authoring, available in an electronic form, consisting of 10 questions relating to the consumption of energy drinks among surveyed students. The questionnaire was constructed according to the applicable standards and rules concerning the collection of data through a survey. The study was approved by the Bioethics Committee at the Medical University of Lodz. Questions concerning the frequency of energy drinks, the reasons for the consumption, preferred brand and volume of purchased beverages, the effect of consumption on the individual marks, as well as the frequency and type of adverse events occurring after ingestion. The analysis was conducted related to gender.
RESULTS: The vast majority of the surveyed students (n= 89; 67.94%) reported energy drinks consumption. The majority (n= 55; 41.99%) consumed energy drinks occasionally. 48.09% (n= 63) of students used this type of drinks frequently during exam sessions. Consumption several times a month was declared by 21.37% (n= 28) of students. Fixed consumption, i.e. a few times a week or daily, was admitted by 4.58% (n= 6) of studied participants. Statistical analysis showed that the frequency of consumption is not significantly varied by sex. The study participants chose energy drinks in order to: improve mental performance while studying (47.33 %; n= 62), increase energy in general (46.56%; n= 61), eliminate sleepiness for insufficient sleep (19.85 %; n= 26) and drink with alcohol while partying (9.92%; n= 13). Energy drinks were also consumed while driving a car for long periods of time, out of habit and to quench thirst or to treat a hangover. These responses differed according to sex only when ingested to stimulate (51.61% male vs. 48.39% of women; p= 0.02). Most of the students, when asked about the well-known brand of energy drink listed the following: Red Bull (93.13%), Tiger (91.60%), Burn (90.08%), Black (74.81%), Be Power (48.85%), and R20+ (30.53 %). The obtained values do not add up to 100 % because there may be more than one brand. Responses were statistically different only in choosing Be Power, which was often marked by men (62.79% vs. 42.05%; p= 0.04) and R20+ (55.81% male vs. 18.18% women; p < 0.01). Most of the students (58.02%; n= 76) chose the drink of the beverage quantity of 0.3l. Men often chose a volume of 0.5l (9.92% vs. 8.40%; p= 0.02) and 1l of beverage (8.40% vs. 1.53%; p? 0.001). Effects of the consumption were assessed by the most of respondents as effective in stimulation (54.20%; n= 71). After consuming an energy drink almost half of the students (48.09%; n= 63) observed side-

effects. The most common symptom was heart palpitations (30.53%; n= 40). Over 20% of the students noticed significant stimulation and tremors/ trembling hands. Headaches were reported by 9.16% (n= 12) of respondents. Disorders of the gastrointestinal tract and breathing problems were reported in almost 5% of students.
CONCLUSIONS: Because of the widespread use of energy drinks, actions should be taken to increase knowledge about the composition, permissible dose of the administered substances and the potential health risks associated with excessive consumption of energy drinks among students.
ADD: This paper is approved by Local Ethical Committee.

Differentiation of induced pluripotent stem cells into neural stem cells and investigation of their potential to further differentiate into neurons, astrocytes and oligodendrocytes

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INTRODUCTION: Recent progress made in the field of cellular reprogramming and differentiation of stem cells provides a great tool that can be used in modelling of various human diseases and regenerative medicine, in which fully-functional cells can be introduced into human body in order to cure diseases that now are extremely hard to manage. Induced pluripotent stem cells (iPSCs) are capable of differentiation into various cell types and importantly can be obtained by means of reprogramming of mature cells, like fibroblasts. iPSC can be differentiated into neural stem cells (NSCs), which are multipotent cells capable of further differentiation into such cells as neurons, astrocytes and oligodendrocytes. Therefore, it is possible to obtain a great amount of specific neural cells that can be used for regenerative therapy or modelling of various neurological disorders such as Alzheimer's or Parkinson's diseases.
PURPOSE: The purpose of the study was to present differentiation potential of iPSCs, from which NSCs and ultimately neurons, astrocytes and oligodendrocytes can be obtained.
METHODS: iPSCs were grown in a suspension culture in order to form so called embryoid bodies, which then were treated with retinoic acid. After formation of neural spheres, cells were grown as adherent culture. The last step was treatment of cells with differentiation media giving rise to colonies of neurons, astrocytes and oligodendrocytes. Immunohistochemistry and Real-time PCR techniques were used to confirm the expression of marker proteins characteristic for particular neural cell lineages.
RESULTS: Cells grown in particular differentiation media revealed typical morphology of neural cells. Immunohistochemistry analysis using antibodies against MAP2, GFAP and GALC and Real-time PCR revealed that obtained cells were neurons and astrocytes. Results for oligodendrocytes were not conclusive.
CONCLUSIONS: iPSCs can be efficiently differentiated into NSCs by application of retinoic acid. Afterwards, NSCs can be further differentiated into neurons and astrocytes, when grown in proper differentiation media. For obtainment of oligodendrocytes some other methods need to be investigated.
ADD: This paper is approved by Local Ethical Committee.

Comorbidities and polypharmacy among the students of Academy of Healthy Ageing

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INTRODUCTION: Comorbidities and polypharmacy are inherent problems related to geriatric practice. The number of concomitant disorders, severity of the diseases as well as the number of drugs taken increases with the age and are associated with a higher risk of hospitalization and mortality in elderly population. These phenomena are particularly meaningful in the era of ageing population in the EU.
PURPOSE: The aim of this study was to determine the level of comorbidities and polypragmasia among the students of the Academy of Healthy Ageing, one of the initiatives of the Healthy Ageing Research Centre.
METHODS: The study was conducted in a group of 142 people aged 60-87 years. The questionnaire included questions about comorbidities, medications and dietary supplements. Interactions between drugs were checked with a Medscape Drug Interaction Checker and classified as less important, important or very important.
RESULTS: The study group consisted of 118 women (mean age 68.1) and 24 men (mean age 71.1). The average number of concomitant diseases was 3.8. The most common chronic diseases were: hypertension (reported by 50 % of study precipitants), osteoarthritis (50%) and hypercholesterolemia (34%). Five or more diseases were reported by 31.7% of subjects. The average number of medications used by one study subjects was 5.3. The most frequently prescribed drugs were: statins, angiotensin converting enzyme (ACE) inhibitors and beta-blockers. In general drug interactions occurred in 45.1% of the study precipitants. Interaction classified as minor, major and very important were reported in 20.4 %, 41.6 % and 6.3% of the cases respectively.
CONCLUSIONS: The results show high number of concomitant diseases, medication load and potentially dangerous drugs interactions among students of Third Age University. It may suggest how important is the cooperation between doctors of different specialties in order to optimize the therapy of elderly patients.
ADD:

Comparative analysis of the types, causes and circumstances of child deaths based on autopsy studies from the years 1965-1967, 1985-1987 and 2005-2007.

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INTRODUCTION: Despite rapid civilization development during the recent 50 years, the children's deaths are still an important problem from the point of view of not only forensic medicine, but also other medical disciplines, such as gynecology and obstetrics, neonatology, pediatrics, or pediatric surgery.
PURPOSE: The aim of the study was to analyze the causes of children's deaths in three periods of time separated by twenty-year intervals.
METHODS: In total, 446 autopsy reports concerning the deaths of fetuses, neonates, infants, children and adolescents up to 18 years of age in the years 1965-1967, 1985-1987 and 2005-2007 from the Department of Forensic Medicine of the Medical University of Lodz were assessed.
RESULTS: In comparison with the 1960's, the number of deaths in this age group was observed to have decreased four-fold, reaching in the most recent period 26 cases a year on the average. In most of the considered cases, male subjects were affected - the boys-to-girls proportion of autopsies was ca. 60% and remained relatively stable in all the analyzed periods (with the standard deviation not exceeding 10%). The most common cause of deaths in all the analyzed years were injuries, most frequently multisite and multiorgan traumas, followed by cranio-cerebral and perinatal ones. The rates of injury-related deaths were growing steadily (by ca. 20 percentage points in forty years). The rates for pneumonia, the second most frequent cause of mortality among children from 1965 to 1987 were observed to have gone down to the sixth position up to the present. A considerable decrease of the number of deaths caused by rapid suffocation (due mainly to obstruction of the upper airways in neonates and infants, and to drowning in older children and adolescents) can be noted; nevertheless, it is the second most frequent cause of children's deaths at present. A problem deserving special attention is intrauterine death,

which was not very common in 1965-1967 (7%), rare in 1985-1987 (1.5%) and now constitutes the third most frequent cause of mortality (12%).
CONCLUSIONS: The analysis of the main causes of children's deaths allows to conclude that mortality in this age group could be reduced e.g. by implementation of programs preventing the injuries, including primarily road accidents, drownings and poisonings, as well as by providing appropriate education and care for pregnant women.
ADD:

Evaluation of the patients' knowledge on the impact of medications of laboratory results.

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INTRODUCTION: Interference of medication on the laboratory tests is frequent, because of their number and common use. The medications have their pharmacological effect, causing changes in some laboratory test results.
PURPOSE: The aim of the study was to determine the level of knowledge of patients on preparation for laboratory tests and on the impact of medications of their results.
METHODS: The study was carried out in October 2013 using original individual interviews in the form of questionnaires. The study was conducted on a group of 345 randomly selected patients of Uniwersytecki Szpital Kliniczny in Bialystok. Data were analyzed using IBM SPSS Statistics 21.0 Predictive Solutions. To verify the relationship between the qualitative characteristics Chi-square test of independence and Fisher's exact test were used. The value $p < 0.05$ was considered as statistically significant.
RESULTS: At the level of $p < 0.05$ there was statistically significant relationship between the fact of remaining under the supervision of the doctor and the frequency of laboratory tests performed. There was a relationship between the age of patients and reading package leaflet ($p < 0.05$). The largest group of leaflets' readers were patients aged over 60 years. In addition, at the level of $p < 0.05$ there was statistically significant relationship between the patients' age and their knowledge on example of a medication that affects the result of laboratory test. The most frequently cited examples of medicaments were: vitamin C, non-steroidal anti-inflammatory drugs, chamomile, antibiotics and anticoagulants. Moreover, there was a relationship between the fact of performing laboratory tests without referrals and asking diagnosticians about the preparation during blood collection or receiving a result ($p < 0.05$). The vast majority of patients (63%) claimed that have never received result influenced by medications.
CONCLUSIONS: Based on the results of the study it can be concluded that the state of knowledge on the effects of medications on laboratory tests is insufficient. The respondents are not fully aware of the importance of the preanalytical phase and its involvement in the diagnostic process. Our proposal is to create a medication database containing informations on their possible impact on the laboratory test results.
ADD:

The diagnostic value of selected acute phase proteins in the differential diagnosis of fluids from body cavities.

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INTRODUCTION: The current classification of fluids from body cavities as transudates and exudates is mainly based on

biochemical criteria , which were created in 1972 by Light. Undertaken study was designed to evaluate the use of selected acute phase proteins (albumin and CRP) as additional biochemical markers differentiating fluids from body cavities
PURPOSE: The aim of the study was to measure the concentration of albumin and CRP in fluids and blood serum, to determine albumin ratio (QALB) and CRP ratio (QCRP) and to compare them to protein ratio (Q TP) as a parameter, which is used in the current biochemical differential diagnosis of fluid from body cavities.
METHODS: The research material was blood and fluids from the body cavities obtained from 58 patients (43 M and 15 F) aged 45-72 years. Fluids were divided into transudates and exudates according to Light's criteria. Blood and fluid collected were centrifuged 10 min/2000 rpm. Sera and supernatant were aliquoted and stored at -74 Â° C until the assayed. CRP concentration was determined by immunoturbidimetric, albumin- spectrophotometric method, and total protein (TP) - by biuret method on biochemical analyzer ARCHITECT ci8200. The results were statistically analyzed using U Mann-Whitney test and Spearman correlation. The value p< 0,05 was accepted as the level of significance. The selection of cut-off points was based on the standard ROC analysis.
RESULTS: There were statistically significant differences in the level of QCRP and QALB between groups (p <0.05). In addition, positive correlation was found between QCRP and QTP (r = 0.61, p <0.05) and a weaker positive correlation between QALB and QTP (r = 0.43, p <0.05). Optimal cut off values of QCRP and QALB for diagnosis of exudate were 0,30 and 0,47. It can be seen that the criterion QCRP above the corresponding cut-off values had a sensitivity of 90%, a specificity of 61%, a positive predictive value (PPV) of 71% and a negative predictive value (NPV) of 85%. The criterion QALB above the cut-off levels established has a sensitivity of 76%, a specificity of 64% , a PPV of 69% and a NPV of 72%.
CONCLUSIONS: The study suggests that acute phase proteins can be useful in the differentiation of transudates and exudates. However, in order to confirm the results it is required to perform research on a larger group of patients.
ADD: This paper is approved by Local Ethical Committee.

Comparative analysis of types and circumstances of deaths associated with the use of sharp, sharp-pointed, pointed or sharp-edged tools based on medical autopsies in 1965-1970 and 2005-2010.

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INTRODUCTION: A common type of injuries faced by forensic pathologists during autopsies are wounds from sharp, sharp-pointed, pointed and sharp-edged tools.
PURPOSE: The paper presents the comparison of the rates of deaths associated with these tools as well as the accompanying circumstances.
METHODS: It is based on the analysis of autopsy material of the Department of Forensic Medicine, Medical University in Lodz in the years 1956-1970 and 2005-2010.
RESULTS: Deaths associated with the use of sharp, sharp-pointed, pointed or sharp-edged tools constituted 1.92% of all medical autopsies in 1965-1970 and 2.7% in 2005-2010. In the majority of the considered cases, the victims were male. The predominant age group in the first analyzed period were subjects aged 21-30 years and in the second one-aged 41-50 years. Most circumstances of death indicated the murder, but in both periods of time there were certain percentages of cases in which forensic pathologists failed to establish the circumstances of death. The most common cause of death in both periods was bleeding, which accounted for 33.2% of cases in 1965-1970 and 56.6% in 2005-2010. Both in the second half of the 1960's and at the beginning of the twenty-first century, the most commonly used tool was a knife, but there were cases in which the injuries were inflicted with a screwdriver, an ice pick or a glass. Over a half of the victims died at the site of the incident. Assessing the state of sobriety of the victims, we observed that in one-third of the cases the deceased had not consumed any alcohol. The perpetrators of killings usually turned out to be family members, or people who had consumed alcohol with the victim, however, it is noteworthy that a large proportion of perpetrators remained unknown at the time the autopsy report was made. In both time periods, the wounds were most often found on the front of the chest and multiple injuries were often observed. Among all the types of wounds, stab wounds were predominant, but there were also

combinations of different types of injuries, sometimes occurring in the same area of the body.
CONCLUSIONS: The studied material allowed to answer a number of questions important for forensic pathologists, concerning the changes in structure and circumstances of deaths associated with the use of sharp, sharp-pointed, pointed and sharp-edged tools that took place in the two analyzed periods of time, indicating at the same time that such deaths still account for a considerable percentage of autopsy cases.
ADD:

Proper criteria for the diagnosis of metabolic syndrome in children and adolescents - NHANES III or IDF?

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INTRODUCTION: Metabolic syndrome (MS) is an important risk factor of cardiovascular diseases. In 2007, International Diabetes Federation has published new criteria for diagnosis of MS in children and adolescents - this criteria are different from the previously used criteria NHANES III.
PURPOSE: The aim of the study is to compare the use of the definition by NHANES III and IDF in the diagnosis of MS in children and adolescents with type 1 diabetes.
METHODS: The study included children with type 1 diabetes aged 10 to 18 years old. Subjects were performed lipidogram, 24h blood pressure study and measured the waist and hips circumferences.
RESULTS: Comparison of IDF and NHANES III criteria showed large differences in the frequency of MS occurrence - e.g. abdominal obesity, hypertension, and triglycerides according to IDF criteria sequentially diagnosed with 33.86% , 21.54% and 5.14% of the patients, while with NHANES III criteria sequentially with 40.51%, 46.92% and 12.31% of children. Reduced HDL-C (due to identical criteria in both cases) was diagnosed in 2.86 % of patients. MS rarely diagnosed by the IDF (55 children - 14.10%) than by NHANES III criteria (98 children - 25.13%, $p<0.001$).
In comparison of the components of MS by gender, we also note the differences.With NHANES III criteria, abdominal obesity is more common in girls than in boys (55.06% vs 44.94%, $p<0,001$) - with IDF, difference was statistically insignificant. With IDF criteria, hypertension was more common in boys than in girls (37.85% vs 13.94%, $p<0,001$) - with NHANES III criteria, difference was statistically insignificant. Due to both definitions, the metabolic syndrome were more frequent in girls than in boys (NHANES: 29.65% vs 21.56%, $p<0,001$; IDF: 19.53% vs 14.12%, $p=0,018$).
CONCLUSIONS: The comparison showed significant differences in the incidence of individual components of MS according to the adopted criteria. It is necessary to performed long-term, prospective studies to assess the suitability of particular definitions of MS in determining the risk of cardiovascular diseases.
ADD: This paper is approved by Local Ethical Committee.

Allergic diseases in children and adolescents with type 1 diabetes

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INTRODUCTION: In the pathogenesis of type 1 diabetes, an important role is played by an imbalance between subpopulations of lymphocyte: Th1 (associated with a higher incidence of autoimmune diseases) and Th2 (associated with allergic reactions and diseases). This view of the pathogenesis of this disease may raise suspicion of a clinically significant association between type 1 diabetes and allergic diseases.

PURPOSE: The aim of the work is (inter alia) to assess the prevalence of allergic diseases in children and adolescents with type 1 diabetes.
METHODS: The analysis included 1007 children (654 children with diagnosed type 1 diabetes from at least six months and 385 children as a control group of study). Groups did not differ significantly with respect to age (x = 10.8 Âą 2.87 years) and gender. Medical interview, physical examination and laboratory measurements (total IgE and total IgA concentrations in serum by enzyme immunoassay, with the exception of children under 4 years old) was performed. In the group of children with type 1 diabetes were also performed measure percentage of glycated hemoglobin, by HPLC method.
RESULTS: Allergic diseases (e.g. allergic rhinitis, allergic conjunctivitis, atopic dermatitis, bronchial asthma) was diagnosed in 171 children (16.98% of the group) and the frequency of their occurrence in children with type 1 diabetes was lower than in the control group (9.33 % vs 31.16%, p<0.001). Among children with type 1 diabetes and elevated total IgE allergy was more frequent (19.99%) than in children with type 1 diabetes and normal total IgE (5.30%) - but more often allergy occurred in patients with elevated total IgE in the control group (42.69%). There has also been a statistically significant correlation between the age of the children and the concentrations of IgA and IgE, total - but always these correlations were weaker in children with diabetes (Spearman correlations - IgA and age: 0.348 vs 0.286 , p<0.001, IgE and age: 0.169 vs 0.05, p<0.001). In the group of children with diabetes, there was no statistically significant difference in metabolic control, between patients with and without allergic disease (HbA1c: 7.39% vs 7.74%, p=0.238).
CONCLUSIONS: The study showed a lower incidence of allergic diseases in young patients with type 1 diabetes. Coexistence of allergic disease did not affect the deterioration of metabolic control in diabetic patients.
ADD: This paper is approved by Local Ethical Committee.

Autoimmune diseases and anthropometric differences in children and adolescents with type 1 diabetes

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INTRODUCTION: Th1 lymphocytes, which constitute an important role in the pathogenesis of type 1 diabetes are associated with a higher incidence of autoimmune diseases. It is well known that diabetes type 1 coexists with other autoimmune diseases, primarily Hashimoto's disease and celiac disease.
PURPOSE: The aim of this study is to assess the frequency of occurrence of autoimmune diseases in children and adolescents with type 1 diabetes and to assess the possible association between autoimmune diseases in diabetes with anthropometric parameters of body.
METHODS: The study included children with type 1 diabetes aged 10 to 18 years old. Subjects were measured the waist and hips circumferences. Body mass composition was performed with bioimpedance method (TANITA-BC-418M). Informations about concomitant autoimmune diseases acquired through medical interview and analysis of medical records.
RESULTS: 94 children (24,1%) has at least one additional autoimmune disease, the most common autoimmune thyroiditis (18.21%) and celiac disease (4.87%). In girls, the prevalence of autoimmune diseases was higher than in boys (37.21% vs 13.76%; p<0.001), particularly in the case of Hashimoto's disease (29.65% vs 9.17%%; p<0.001). Patients with Hashimoto's disease were characterized by a higher proportion of segmental and total body fat (24.40% vs 21.07%; p<0.001) and consequently - lower percentage of muscle tissue (71.64% vs 75.29%; p<0.001) and a lower water content in the body (55.09% vs 57.79%; p<0,001). No correlation was found between the percentage of fat and the concentration of TSH (R=0.031, p=0.557). In girls with abdominal obesity, the prevalence of autoimmune diseases was higher (31.30% vs 20.16%; p=0.018) - for boys, the result was not statistically significant. The coexistance of additional autoimmune disease did not have a statistically significant effect on metabolic control of patients (p=0.76).
CONCLUSIONS: The presence of autoimmune diseases associated significantly with changes in body structure (in particular in distribution of body fat). At the same time, there was no effect of the presence of autoimmune diseases on the metabolic control of children with type 1 diabetes.
ADD:

Sleep disorders among pregnant women

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INTRODUCTION: Sleep is a natural recurring state and physiological need of every man which ensures both indispensable physical and psychological homeostasis. Sleep disorders significantly aggravate concentration, sensory activities, everyday functioning and moreover constitute one of the most often reported ailment among pregnant woman due to their hormonal and anatomical changes. Poor sleep quality is accompanied by increased daily sleepiness and risk of development of obstructive sleep apnea (OSA). According to conducted research, sleep disorders concern more than 80% of questioned women (n=147).
PURPOSE: The aim of this research is to assess the frequency of low sleep quality, daytime sleepiness and OSA among pregnant women in comparison to a control group taking into account different etiological factors.
METHODS: 147 pregnant women from the Hospital of M. Pirogow in Lodz were interviewed to assess their sleep alterations. 140 women in reproductive age represent the control group. The survey was comprised of demographic part and three standardized tests: PSQI (Pittsburgh Sleep Quality Index), ESS (Epworth Sleepiness Scale), BSQ (Berlin Sleep Questionnaire) assessing sleep quality, daytime sleepiness and OSA respectively. Statistical analysis was performed by means of Statistica PL version 10.0. Hypotheses were confirmed using U Mann - Whitney, Chi2, Student's t tests and logistic regression.
RESULTS: The survey confirmed sleep disorders amid 81% of pregnant women. Comparative analysis between pregnant patients and control group revealed a statistically significant difference in frequency of poor sleep quality ($p<0.001$), daytime sleepiness ($p<0.001$) and risk of OSA ($p<0.001$). Simultaneously, the impact of sleep disorders on ESS score was not confirmed ($p=0.86$). Increased risk of OSA statistically did not exert an influence on low sleep quality ($p=0.62$). However, there is a statistical connection between stress level, trimester of pregnancy and PSQI score. The most often causes of sleep disorders were an inconvenient position during sleep, necessity of going to the toilet at night and intensified stress.
CONCLUSIONS: Abnormal scores of PSQI, ESS and BSQ were more often observed amid pregnant women than in the control group. Sleep disorders increase in I and III trimester of pregnancy and have a complex etiological background. Received data suggests a tenuous relation between low sleep quality and daytime sleepiness. Risk of OSA does not influence PSQI and ESS scores.
ADD: This paper is approved by Local Ethical Committee.

THE STATE OF NONSPECIFIC RESISTANCE OF THE ORGANISM AFTER THE FORMATION OF COLONIC COMPRESSIVE EMBOLIC FISTULA WITH COLLAGEN

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INTRODUCTION: Introduction. Complications after the formation of interintestinal anastomoses are developed with sufficiently high frequency, such as anastomositis, insolvency of sutures, stricture, bleeding from line's suture in lumen of the organ. According to some authors, mechanical, conjunctive and compressive sutures are the most reliable. However, there are a number of defects, that prevent their wide introduction to modern practice. Thus, existing ways of forming colonic anastomoses must be improved
PURPOSE: Purpose: to investigate the dynamics of nonspecific resistance after the formation of colonic compressive embolic anastomosis on the basis of collagen rings.

Research tasks: to perform operations on formation of interintestinal anastomoses, to determine leukogram in blood, neutrophil phagocytic rate, concentration of circulating immune complexes and activity of complement.

METHODS: Materials and methods: The experiment was performed on 48 white outbred rats, on 24 ones in each group. In the control group colonic anastomosis was carried out by single-layer suture. In the experimental group compressive embolic colonic anastomosis was formed. Leukogram was determined by using Gorjaev's count chamber. The model of phagocytosis was reproduced for the assessment of the functional properties of rats blood neutrophils. The level of circulating immune complexes was determined by using immune-enzyme analyzer Sunrise TECAN (Austria). Activity of complement system was determined by using hemolytic system on the basis of sheep erythrocytes. Results of studies had been subjected to dispersion analysis by type of full factor experiment.
RESULTS: Results: On the 3rd day of the experiment in the group of animals with ligature colonic anastomosis total leukocytosis was at 1.30 times ($p < 0,05$) higher compared with the main group. On the 7th day of the experiment in the control group, compared with the main, phagocytic index was higher 1.27 times ($p < 0,05$), phagocytic number - 1.25 times ($p < 0,05$). The maximum concentration of circulating immune complexes in the control group was 1.43 times higher, and the activity of complement - 1.27 times ($p < 0,05$).
CONCLUSIONS: Conclusions: The formation of compressive embolic colonic anastomosis with collagen rings are characterized by moderate activation of cellular and humoral link of nonspecific resistance in the postoperative period.
ADD: This paper is approved by Local Ethical Committee.

PECULIARITIES OF REPARATIVE PROCESSES OF COMPRESSION EMBOLIC FISTULA WITH COLLAGEN RINGS

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INTRODUCTION: Introduction. Despite the rapid development of technologies during the last 50 years the frequency of complications after the formation of interintestinal anastomoses remains high, among them there are such complications as anastomositis, insolvency of sutures, stricture, bleeding from suture line in the lumen of an organ. The most reliable, according to some authors, are mechanical conjunctive and compressive sutures. However, there are several defects that hinder their wide application in modern practice. Thus, the existing methods of colonic anastomoses formation need much to be desired.
PURPOSE: Purpose: in the experiment is to study the peculiarities of the course of reparative processes in the area of compression embolic colonic anastomosis, formed on the basis of collagen rings.
Objektive: to perform operations on formation of interintestinal anastomoses, in the area of fistula define specific areas of the cellular, connective tissue and vascular components.

METHODS: Materials and methods: The experiment was performed on 48 white outbred rats, 24 individuals in each group. In the control group colonic anastomosis was carried out by single-layer suture. In the experimental group compressive embolic colonic anastomosis was formed. Microslides have been investigated using light microscope ÂŤCarl ZeissÂť Axiostar Plus and digitized using the camera ÂŤCanon A620Âť. The specific area of the cellular nuclei and connective tissue was determined using the ÂŤMashacvÂť program, and that of vessels - in the medium of public-domain software ÂŤPhotoM 1.31Âť. The results of the studies have been subjected to variance analysis by type of full factorial experiment.
RESULTS: Results: On the 3rd day of the experiment the specific area of a fistula cellular component of control and experimental groups was 49.3% and 24.8% ($p<0.006$), that of vascular - was almost identical, that of fibrous - 8.0% and 16.0% respectively ($p<0,03$). On the 7th day the specific area of a cellular component in the control and experimental group was 41.2% and 21.2% ($p<0.001$), that of vascular - 3.1% and 2.0% ($p<0.002$), that of fibrous -- 8.0% and 18.3% respectively ($p<0.001$). On the 14th day in the control and experimental group the specific area of a cellular component was 29.5% and 21.7% ($p<0.004$), that of vascular - 2.6% and 0.9% ($p<0.002$), and that of connective - tissue - 28.8% and 18.5% ($p<0.004$) respectively. On the 30th day the specific area of a cellular components in the control and experimental group was 14.0%

and 16.5% (p<0.05), that of vascular - 0.7% and 1.2% (p<0.05), that of fibrous - 36.0% and 18.4% (p<0.05) respectively.
CONCLUSIONS: Conclusions: in the area of compressive colon anastomosis, formed by collagen rings, a local inflammatory reaction has been developing, accompanied by a slight swelling and the formation of moderate amount of granulation and connective tissue.
ADD: This paper is approved by Local Ethical Committee.

Prader Willi Syndrome and growth hormone therapy: valuable effects and adverse events.

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INTRODUCTION: Prader-Willi Syndrome (PWS) is a genetic disorder with hypothalamic-pituitary dysfunction, in which obesity and excess fat to lean body mass cause metabolic complications. To normalize these disorders, PWS patients are treated with recombinant human growth hormone (rhGH). Long-term tolerance in PWS children treated with rhGH is not well known and the data are still required.
PURPOSE: The objective of this study is to evaluate effects of this treatment, to investigate the evolution of obesity on basis of BMI-SD, growth velocity, weight, lipid and glucose metabolism and to assess comorbidities.
METHODS: Twelve genetically confirmed PWS patients (pts): 8 boys and 5 girls, median age 13.4 Âą5.64 years (5-17 yrs), treated with rhGH in 2013, were included to the study. Treatment duration: 5.9 Âą2.62 yrs (2-11yrs). The study was based on data from patients medical records.
RESULTS: During the treatment, weight standard deviation score (SDS) increased from 0.16 to 0.93 and height SDS from -1.38 to 0.55. Weight SDS recorded raised after median 3 yrs of treatment (to 1.15) and after 4 yrs of treatment noted downturn (0.93); height SDS had been increased progressively. BMI-SD at the beginning of the treatment was 1.31, now totals 1.29.
11/12 pts required decreasing of rhGh dose: 8/12 due to the high IGF1 value, 2/12 pts glucose intolerance in OGTT and one pt rapid acceleration of growth. Glucose intolerance concerned one pt who became obese during 6 yrs of treatment (BMI-SD: 1.025-2.522) and one pt with BMI-SD ranged 0,01-0,556 over 7 yrs. One pt discontinued treatment due to an excessive increase in body weight (weight SDS 0.99- 2.53 over 3 years of treatment).
Mean pts HbA1c level was 5.37%, there was no diabetes presented among pts. Lipids profiles within normal ranges in all cases but one, boy in whom treatment was discontinued. 2cases of tonsillar hypertrophy and one of scoliosis progression was observed.

CONCLUSIONS: Treatment with rhGH much increased the rate of growth in PWS pts. It is considered as a side effect, however beneficial, because of growth hormone deficiency. Body weight increase should be appropriate to the increase of height. Therefore BMI-SD should be strictly monitored, not to allow the development of obesity and severe metabolic disorders as a result. Failure to achieve this goal is a case of discontinuation of rhGH therapy.
ADD:

The analysis of antihypertensive treatment in dialysed children in Poland in 2013

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INTRODUCTION: Hypertension amongst children undergoing renal replacement therapy because of chronic kidney disease is invariably a problem that affects a large group of patients. Unfortunately, these cases still make a big therapeutic problem due to limitations resulting from the lack of recommendations regarding the use of drugs in this age group.
PURPOSE: The aim of the analysis was to assess the effectiveness of antihypertensive therapy amongst Polish children undergoing renal replacement therapy in comparison to the similar clinical trial made in 2004.
METHODS: The study group consisted of 51 children (mean age 10,5 years) treated with haemodialysis (18 children) or peritoneal dialysis (33 children), from 9 of 12 paediatric dialysis centres in Poland. The data were gathered through a specially designed questionnaire about anti-hypertensive treatment (amount and doses of drugs) and its efficiency both in doctor opinion and value of blood pressure.
RESULTS: Hypertension in the study group was diagnosed and treated in 36 children (70,6%). 6 children (11,8%) had elevated blood pressure but they didn't received medical treatment. Monotherapy was used in 11 patients (30,5%), 14 (39%) children received 2 drugs, 5 (14%) 3 drugs and 6 children four and more drugs. In monotherapy, calcium channel blockers were the most common administered drugs (45%). In two-drug therapy calcium channel blockers and angiotensin-converting enzyme inhibitors were preferred. The most frequently used drugs were calcium channel blockers (69% children), similarly like in 2004- (73%).
The treatment efficiency was assess amongst children on the therapy. 19 of 36 patients (53%) had incorrect values of blood pressure. Together, 25/51 (50%) dialyzed children had underdiagnosed or undertreated hypertension.
CONCLUSIONS: The effectiveness of pharmacological treatment amongst dialyzed children in Poland in 2013 year was insufficient (50%). In comparison to 2004 year there is no improvement in this case. The basic methods of treatment and groups of drugs hasn't changed. There were only few new drugs introduced.
ADD: This paper is approved by Local Ethical Committee.

EXPERIMENTAL CHARACTERISTICS OF TIGHTNESS OF COMPRESSIVE ANASTOMOSIS WITH COLLAGEN RINGS

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INTRODUCTION: Introduction. After the formation of interintestinal anastomoses such complications as anastomositis, insolvency of sutures, stricture, bleeding from line's suture in lumen of the organ are often developed. Mechanical, conjunctive and compressive colonic anastomoses are rated by a number of authors as the most reliable. However, there are a number of defects, that prevent their wide introduction to modern practice. Thus, existing ways of forming colonic anastomoses must be improved.
PURPOSE: Purpose: to investigate the dynamics of mechanical strength and bacterial permeability of the compressive colonic anastomosis, formed by collagen rings.
Research tasks: to perform operations on formation of interintestinal anastomoses, to evaluate the concentration of colony forming units in lavages of anastomoses, to explore the mechanical strength of fistula.

METHODS: Materials and methods: The experiment was performed on 48 white outbred rats, 24 ones in each group. In the control group colonic anastomosis was carried out by single-layer suture. In the experimental group compressive embolic colonic anastomosis was formed. Bacterial permeability of fistula was estimated by counting the number of CFU on the 2-nd day of incubation of inoculation. Using a special device, maximum pressure was recorded at which fistula kept tightness. Results of studies had been subjected to dispersive analysis by type of full factor experiment.
RESULTS: Results: On 3 and 7 days after operation compressive colonic anastomosis kept tightness at the intraluminal pressure in 1,71 and 1.29 times respectively higher ($p < 0.05$) than ligature single-layer one (table 1).
Table 1 - Dynamics of pressure anastomoses rupture, mm Hg
Group 3 day 7 day 14 day 30 day

Control 82.3 164.2A 213.7A 262.8A
Experiment 140.8 211.7A 226.8A 272.2A
A - certain difference of the index compared with the previous period (p<0.05)
Bacterial permeability compressive fistula on 3 and 7 days after operation was lower in the 22,4 and 13.3% respectively (p < 0.05) (table 2).
Table 2 - Dynamics of concentration CFU /10ÂÍ of lavage (table 1).
Group 3 day 7 day 14 day 30 day
Control 62.8 4.0A 1.2A 0.0
Experiment 2.8 0.3A 0.0 0.0
A - certain difference of the index compared with the previous period (p<0.05)

CONCLUSIONS: Conclusions: compressive embolic colonic anastomosis with collagen rings has high mechanical strength and low bacterial permeability.
ADD: This paper is approved by Local Ethical Committee.

Influence of surgery and hospitalization on patients dietary habits

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INTRODUCTION: Every surgical intervention, no matter how small, is a stressful event for the patient. Proper healing requires adequate nutrition. Prolonged hospital stay is well-established risk factor for both malnutrition and loss of appetite.
PURPOSE: Evaluation of the influence of surgical intervention on patients eating habits and caloric intake postoperatively.
METHODS: We gathered dietetic interview from eligible patients who had undergone surgical procedures in the 2nd Department of General Surgery Jagiellonian University. Each interview covered three consequent days, beginning 7 days before the surgery and 7 days after the discharge. Patients after bariatric procedures were excluded from the study. We calculated and compared mean caloric intake prior and after hospital stay. We also measured patients BMI pre- and postoperatively as well as assessed eating habits in analyzed group of patients.
RESULTS: The majority of patients did not change the number of meals they had during the day. However there was BMI reduction of 2,9% in the entire group patients. We observed that daily caloric intake postoperatively was decreased in 59% of patients. There was higher BMI loss among patients after laparotomy comparing to laparoscopy.
CONCLUSIONS: Many patients during recovery period eat less than preoperatively. In some cases it is related to pain or lack of appetite. Postoperative nutrition is a highly undermined problem, which may facilitate occurrence of complications. Each patient, during discharge, should obtain a proper dietary advice in order to sustain his normal eating habits and caloric intake.
ADD: This paper is approved by Local Ethical Committee.

Analysis of injuries in professional volleyball players.

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INTRODUCTION: In recent years there has been considerable interest in volleyball by both experts and sport fans, as well as ordinary people. With increasing popularity of this sport, a group of researchers from the country's leading centers of orthopedics and rehabilitation decided to analyze the types of injuries occurring in this discipline. Significant number of

studies evaluating the incidence of injuries indicate the ankle as the most exposed part of human body. The shoulder, knee, elbow and whole hand are also affected. The data on this issue, however, are still inconclusive. Furthermore, the studies does not specify the nature, frequency, and correlation with other factors of the injuries.
PURPOSE: The aim of the study was to analyze the data concerning injuries among professional volleyball players (both women and men) from the clubs of Polish Premier Leagues.
METHODS: The following players' data were collected: age, years of professional training, position, the circumstances of the injuries including the time of the accident, training load and field situation and the type of injury and form of treatment. The presented data is gathered from September 2013 up to March 2014.
A group of 104 players agreed to participate in this prospective study. There was 50 players from women league and 54 players from men league.

RESULTS: The initial results show that the most common injury in volleyball is muscle tear (35,7%) followed by knee, shoulder and hand, which represent the similar proportion of nearly 15%. Among all accidents, 10% happened during the league matches, the rest occurred during the training. The injuries arose similarly from three main volleyball field skills: block, defense, attack. Finally, study provided collocation between the type of surface and the risk of contusion - most of them (80%) occurred on parquet.
CONCLUSIONS: In conclusion, the volleyball players are mostly exposed to muscle tearing, which is related to the type of activities during not only the match, but also training. Moreover, the type of surface on which the matches and trainings are performed, might highly affect the health of the players. However, our research is still ongoing and we are looking forward to the latest data from the end of season 2013/2014.
ADD: This paper is approved by Local Ethical Committee.

Differentiated thyroid cancer in children and adolescent.

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INTRODUCTION: Differentiated thyroid cancer is the most common endocrine tumor both in children and adults. Differences in the clinical, histological and prognostic factors of breast cancer in children compared to adults raises the question of whether it should be considered a distinct subtype with treatment recommendations specifically tailored

PURPOSE: To study the characteristics of differentiated thyroid carcinomas in children and adolescents: clinical,para-clinical, epidemiological and discuss therapeutic approaches and prognostic factors.
METHODS: It is a retrospective study of 15 cases of differentiated thyroid cancer in children and adolescents followed in the nuclear medicine department UHC Sahloul over a period of 19 years between January 1992 and December 2010.
RESULTS: Our series includes 15 patients with differentiated thyroid carcinoma . The average age was 14.5 years on a scale of 9-17 years. A female predominance was observed with 10 girls and 5 boys. The most common presenting fashion was a thyroid nodule with a percentage of 60%. No history of exposure to ionizing radiation and no family history of differentiated thyroid cancer were noted . Papillary histology was observed in 93.3 % of cases while the vesicular type represented only 6.6 % of cases. Thyroid scintigraphy with Tc- 99m preoperatively showed a cold nodule in 70% cases . The surgery was a total thyroidectomy with lymph node dissection in all cases it was a one time surgery in 46.6 % of cases and a two-stage surgery for the remaining 53.3 %. The rate of postoperative Tg was higher than 100 ng / ml in 6 patients with a minimum of 0 and a maximum of 843 ng / ml . The lung metastases were present in 46.6 % of cases. Lymph node involvement was objectified in 80 % of cases. All patients received postoperative irathĂŠrapie . The mean doses delivered to clean the thyroid residue was 320 mCi . For lung metastases , the average activity of 450 mCi was delivered with extremes of 300 to 700 mCi . The average decline in our patients was 7.97 years with a minimum of 2 years and 4 months and a maximum of 17 years and 6 months . 66.6% of patients progressed favorably and a white mapping with zero Tg were obtained post irathĂŠrapie . A stabilization of the disease was observed in 20% of cases with isotopic image stabilization without a complete loss of binding . Local tumor recurrence was objectified in one case. One case was lost sight after having 18 courses of radioiodine for locally

advanced lung with lymph node metastasis.
CONCLUSIONS: Differentiated thyroid carcinoma in children and adolescents is more invasive than in adults. it is often spread to the lymph and lungs, but it responds very well to treatment that combines surgery and irathĂŠrapie in most cases.
ADD: This work is a part of the doctoral thesis.

Clinical adherence of donepezil in the treatment of mild to moderate Alzheimer's disease in Taiwan

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INTRODUCTION: Alzheimer disease (AD) is the most common cause of dementia worldwide, with global prevalence estimated to be as high as 24 million, and predicted to double every 20 years through to 2040. Donepezil, an acetylcholinesterase inhibitor (AchE-I), can decrease the degradation of acetylcholine and has been approved for the treatment of mild to moderate AD. Sustained use of donepezil may delay the progressive deficits in cognitive, functional and behavioral symptoms of AD, and the importance of clinical adherence for the benefit has been reported
PURPOSE: However, the clinical therapeutic adherence of donepezil is varied with races and other factors. Several studies have reported the heterogeneous clinical adherence results among varied races and countries, but little is known at Taiwan. We conducted the study to examine the factors related to clinical adherence.
METHODS: A retrospective study was conducted to recruit 120 mild to moderate AD patients treated with donepezil in our hospital, a medical center at southern Taiwan. All procedures were approved by the Kaohsiung Medical University Hospital Institutional Review Board, and all the patients or their legal representatives provided written informed consent. Comprehensive neuro-psychological assessments including mini-mental status examination (MMSE), Cognitive Ability Screen Instrument (CASI) and Clinical Dementia Rating scale (CDR) were administrated along with the initiation of donepezil treatment. Reasons of discontinuation of treatment were records. Therapeutic duration of donepezil was calculated between the first and last treatment of donepezil. Kaplan-Meier survival analysis and Cox regression model were used to assess therapeutic duration and factors related to therapy.
RESULTS: Seventy-there point there percent of recruited patients was female with the mean age 79.9 Âą 8.3 (mean Âą SD) years and education 5.9Âą4.4 years. For initial psychometrics of participants, the MMSE score was 15.6 Âą 5.8 and CASI was 53.5 Âą 19.6. Among staging of dementia, CDR 0.5 was 24.2%, CDR 1 was 59.1%, and CDR 2 was 16.7% of all participants. The mean therapeutic duration was 43.8 Âą 27.6 months and adherent rate of the 12, 24, and 36 months hits 96.7%, 90.6%, and 77.7%, respectively. The significant factors to adherent rate were initial MMSE score (p=0.003), CASI score (p=0.005) and CDR global scores (p=0.04). Among the reasons of discontinuation, 19.2% of these discontinuous therapies were related to the policy of National Health Insurance in Taiwan and 5.0% given to the death of patient.
CONCLUSIONS: The initial MMSE score, CASI score and stage of CDR were all the significant factors to clinical adherence of patients treated with donepezil. Besides, polices of National Health Insurance in Taiwan have great influences in these discontinued patients
ADD: This paper is approved by Local Ethical Committee., This work is a part of the doctoral thesis.

The -5 A/G single nucleotide polymorphism in the core promoter region of MT2A and its effect on allele-specific gene expression and Cd, Zn and Cu levels in laryngeal cancer

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INTRODUCTION: Metallothioneins (MTs) are low molecular weight, cysteine-rich heavy metal-binding proteins which participate in the mechanisms of Zn homeostasis, and protect against toxic metals, especially Cd and Cu and oxidative stress-inducing agents. The transcription of MT genes is induced by heavy metals, drugs, oxidative stress and inflammatory mediators. MTs contain metal-thiolate cluster groups and suppress metal toxicity by binding to them.
PURPOSE: The aim of this study was to determine the -5 A/G (rs28366003) single nucleotide polymorphism (SNP) in the core promoter region of the MT2A gene and to investigate its effect on allele-specific gene expression and Cd, Zn and Cu content in squamous cell laryngeal cancer (SCLC) and non-cancerous laryngeal mucosa (NCLM) as a control.
METHODS: The MT2A promoter region -5 A/G SNP was determined by restriction fragment length polymorphism (RFLP) using 323 SCLC and 116 NCLM. MT2A gene expression analysis was performed by quantitative real-time PCR (qRT-PCR).
RESULTS: The frequency of A allele carriage in 94.2% and 91.8% in SCLC and NCLM, respectively, while G allele carriage was detected in 5.8% and 8.2%. As a result, a significant association was identified between the -5 A/G SNP in the MT2A gene with mRNA expression in both groups. Metal levels were analyzed by flamed atomic absorption spectrometry. A highly significant association was detected between the rs28366003 genotype and Cd and Cu content in SCLC. Furthermore, significant differences were identified between A/A and both the A/G and G/G genotypes, with regard to the concentration of the contaminating metal. In addition, the Spearman rank correlation results showed the expression of MT2A and Cd, Zn and Cu levels were negatively correlated.
CONCLUSIONS: Results obtained in this study suggest that -5 A/G SNP in MT2A gene may have an effect on allele-specific gene expression and accumulation of metal levels in laryngeal cancer.
ADD: This paper is approved by Local Ethical Committee.

Impact of Sox2 on EGFR and EGFRvIII expression in DK-MG cell

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INTRODUCTION: Mutations and amplifications in gene encoding epidermal growth factor (EGFR) are frequently observed in multiform glioblastoma. Characteristic genomic alteration in this gene is deletion of exons 2-7. It results in expression of mutated variant of EGFR (EGFRvIII) partially deprived of extracellular domain what makes this protein constitutively active regardless of ligand accessibility. Cell lines stabilized from tumor tissues of patients suffering from glioblastoma loss their characteristic molecular features such as amplification of EGFR and expression of EGFRvIII especially under classical cell culture conditions. DK-MG is the one, non-modified cell line in which EGFRvIII expression is maintained. However only small amount of DK-MG cells in culture exhibit EGFRvIII and wtEGFR expression and therefore these proteins level are relatively low and difficult to analyze. Some reports suggest that expression of transcriptional factor Sox2 can increase the EGFR expression in cells and on the observation that decrease in Sox2 expression is accompanied by loss of EGFR and EGFRvIII. Based on the above information, DK-MG cells were transduced with lentiviral vector with Sox2 in order to assess its ability to increase EGFR and EGFRvIII expression.
PURPOSE: The main aim of the study was to investigate the impact of Sox2 on the EGFR and EGFRvIII expression in glioblastoma cell line DK-MG and to assess the potential of Sox2 to stabilize the high level of EGFRvIII and EGFR expression under classical cell culture conditions.
METHODS: Sanger sequencing was used to confirm the presence of EGFRvIII mutation at genomic level in DK-MG cell lines. Sox2 was introduced to DK-MG cells by the means of lentiviral infection. The expression of EGFRvIII and EGFR in transduced cells was assessed by real-time RT-PCR. Additionally immunocytochemistry was performed to assess the EGFR expression at protein level.
RESULTS: Sanger sequencing confirmed the presence of genomic deletion in DK-MG cell line spanning the region of 49420 - 141040 bp, what corresponds to EGFRvIII mutation. Analysis of EGFR and EGFRvIII by real time RT-PCR revealed the decrease in the expression of both genes after 5 days and 2 weeks after transduction. Immunocytochemistry have not detect any significant changes in the EGFR protein level after the introduction of Sox2.

CONCLUSIONS: Contrary to previous reports introduction of Sox2 by the lentiviral infection results significant decrease in EGFR and EGFRvIII expression in DK-MG cell line. Therefore Sox2 cannot be used to induce the high level of EGFR and EGFRvIII expression in these cells. It remains unclear if the observed effects was caused by transgene, specific features of cell line applied to experiment or cytopathic impact of viral vector.
ADD: This paper is approved by Local Ethical Committee.

Analysis of health behavior undertaken by students of the Medical University of Lodz.

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INTRODUCTION: According to the World Health Organization, health is a welfare achieved in three dimensions: physical, mental and social. Marc Lalonde, in his published report in 1974 distinguished four groups of factors affecting the health of the human population. These factors were: biology and genetics, environment, organization of health care and lifestyle. Nowadays, it is estimated that the lifestyle affects the health of the community in more than 50%.
PURPOSE: The study aims to analyze of selected health behaviours undertaken by students of Medical University of Lodz.
METHODS: The study involved a group of 200 students of Medical University of Lodz and the questionnaire which was used in this study, contained 34 questions. The study was conducted from November 2013 to January 2014. The results were analyzed statistically.
RESULTS: The results showed that about one-third of respondents (31%), has a contact with patients almost every day, for example: during their professional practise or traineeship.
At the same time, almost the same group of respondents (28%) indicated that they wash their hands before contact with patients by selecting an answer: sometimes or never. More than 80% of respondents declared that they practice the physical activity more than once a week.

CONCLUSIONS: In study population, students showed the high level of physical activity compared to the general public. The group of interviewed students declare that they do not wash their hands before and after performing of any medical procedur on patients despite
a frequent contacts with them. This situation may lead to appearance of health effects both in patients and respondents groups.

ADD: This paper is approved by Local Ethical Committee.

Frequency of severe hypoglycemia in children with type 1 diabetes

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INTRODUCTION: Severe hypoglycemia is a serious acute complication of insulin therapy, therefore gathering data concerning their frequency is necessary for broad evaluation of glycemic control in patients with type 1 diabetes (T1D).
PURPOSE: The aim of this study was to determine the frequency of severe hypoglycemia in children with T1D attending the Diabetes Outpatient Clinic of Department of Pediatrics, Oncology, Hematology and Diabetology of the Medical University of Lodz.

METHODS: The study group included consecutive patients consulted in the Outpatient Clinic, with type 1 diabetes duration of at least one month. Estimation of frequency of severe hypoglycemia was based on standardized questionnaires concerning the last 3 years and on patients' medical documentation. Severe hypoglycemia was defined as loss of consciousness and/or seizures related to low blood glucose level (<70 mg/dl) or any other situation requiring parenteral glucose or glucagon injection. Approximately 30% of the total, scheduled study group of patients have been surveyed so far.
RESULTS: One hundred seventy one patients, 91 female and 76 male, aged from 22 months to 18 years (meanÂąSD: 11,77Âą4,09 years) were included. On average DM1 lasted for 4,69Âą3,66 years. One hundred and twelve diabetic children were on continuous subcutaneous insulin infusion therapy and 54 used insulin pens to inject insulin. The mean level of glycated hemoglobin (HbA1c) at the time of survey was 7,4Âą1,36%.
The event rate of severe hypoglycemia calculated for the last 3 years was 6,13 episodes/ 100 patients/ year (for patients with T1D duration of less than 3 years only the time since T1D diagnosis was considered for analysis). Every year 5,1% of patients had at least one episode of severe hypoglycemia. Among those patients whose diagnosis was made over a year ago the event rate was 6,33 episodes/ 100 patients/ year.

CONCLUSIONS: Severe hypoglycemia is still an inseparable complication of insulin therapy in children and adolescents with T1D. Introduction of more effective prophylactic activities, eg. education, new blood glucose monitoring systems, are necessary.
ADD: This paper is approved by Local Ethical Committee.

Lymphadenopathy-is it always neoplastic disease?

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INTRODUCTION: Lymphadenopathy is frequent problem in children. For this reason patients are directed to the oncology department in order to exclude neoplastic disease. In the differential diagnosis of infectious lymphadenopathy or autoimmune diseases, allergy, metabolic or storage diseases, iatrogenic causes etc. should be taken into consideration.
PURPOSE: The aim of this study was retrospective analysis of the causes of lymph nodes enlargement in group of children who were hospitalized in the Department of Pediatric, Oncology, Hematology and Diabetology Medical University of Lodz. Next goal was to find exponents suggesting neoplastic character of lymphadenopathy.

METHODS: 300 children (184 male, 116 female) were examined over the period from January 2010 till December 2013. Data from physical examination, lab tests and imaging techniques results were analyzed.
RESULTS: Neoplastic disease was diagnosed in 13 of 300 patients (4,3%) . Hodgkin disease was detected in 8 (2,67%) children, acute leukemia in 3 (1%) children, Burkitt lymphoma in 1 (0,33%) patient, angioimmunoblastic T- cell lymphoma in 1 (0,33%) patient. The most frequently enlarged lymph nodes in this group of patient were cervical 9/13 , submandibular 8/13, supraclavicular 5/13 and mediastinal 4/14.
But most causes of lymphadenopathy were idiopathic (180 patients, 60%) and infectious -EBV infections in 31 patients (10,3%), toxoplasmosis in 11 patients (3,77%), CMV infections in 8 patients (2,67%), Bordatella hensalae in 7 patients (2,37%).

CONCLUSIONS: Lymphadenopathy is common cause of hospitalization and diagnostic procedures in children. The etiology of lymph nodes enlargement vary from various infections to lymphoproliferative disorders. It is important to be aware of many different problems which can be connected with this symptom.
ADD:

ASSESMENT OF IDH1 MUTANT (R132H) INFLUENCE OVER THE ASTROCYTIC CELL LINES

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INTRODUCTION: High frequency of mutations in the gene encoding isocitrate dehydrogenase 1 (IDH1) in secondary glioblastomas, as well as a strong association with simultaneous presence of other genetic alterations, may suggest the importance of this phenomenon in the process of tumorigenesis. Over 90% of cases represent substitution of arginine to histidine at codon 132 (R132H) resulting in loss of normal enzyme function and gain of another, which leads to formation of D-2-hydroxyglutarate that is considered as oncometabolite.
PURPOSE: As better understanding of the relationship between mutation in the IDH1 gene and the process of carcinogenesis may expedite the development of new therapies, establishment of a suitable in vitro model is indispensable. Both, literature data as well as own research have revealed difficulties in generating stable cell lines with endogenous IDH1 R132H mutation. They result not only from slow proliferation of the cells, but also from their elimination from the culture, whose mechanism is not completely known. Furthermore, setting appropriate culture conditions also constitutes a challenge since the standard ones do not allow for the propagation of a mutated cells. The purpose was to stabilize the tumor cell line U87MG with exogenous mutation (R132H) in the IDH1 gene and further evaluation of mutant influence over the function of cells.
METHODS: The study was performed on human glioblastoma (U87MG), human embryonic kidney (AD293) and human mammary gland (MCF7) cell lines. The following methods were used: GatewayÂŽ Cloning Technology, Sanger sequencing, immunocytochemistry and in vitro microscopic observations.
RESULTS: The genetic construct obtained by means of GatewayÂŽ Cloning Technology was sequenced using the Sanger method to confirm the presence of mutation, and then introduced into U87MG cell line via lipofection. Proper action of the construct was demonstrated by performing immunocytochemical staining with an antibody specific for a IDH1 R132H mutation. Further analysis showed that the presence of mutation has an impact both on survival and cell proliferation.
CONCLUSIONS: Nevertheless, additional investigations are necessary to determine the exact mechanism of action of the studied alteration. It is particularly important due to the possibility of developing targeted therapy directed at the R132H mutation in the IDH1 gene, which occurs only in cancer cells.
ADD: This paper is approved by Local Ethical Committee.

Confirmation of spontaneous senescence occurrence in cells of glial tumor origin

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INTRODUCTION: Senescence is generally defined as irreversible growth arrest of cells, which simultaneously are viable, metabolically active and do not respond to any stimuli aimed to trigger proliferation. Considering its role in the area of cancer research, detection of senescence is of great importance. Recently, we showed its possible contribution as a mechanism involved in problems with glioblastoma culturing.
PURPOSE: Since none of the senescence markers alone is reliable enough, their combination may significantly facilitate confirmation of senescence occurrence, hence help to authenticate the results and to elucidate the mechanism of spontaneous senescence in glial tumor cells.
METHODS: Glioblastoma cells, obtained from surgical samples, were cultured
to serve as an analytical material in this experiment. The following methodological scheme was developed as a confirmatory regimen for the identification of phenotypic features of senescent cells: in vitro real time microscopic observations (to find morphological changes characteristic for senescent cells), BrdU incorporation assay (to analyze cells proliferative potential) and senescence-associated Ă□-galactosidase staining (to detect activity of senescence-specific enzyme), combined with

immunocytochemical analysis. Additionally, one of the most representative markers, senescence-associated heterochromatin foci (SAHF) was analyzed by DAPI staining.
RESULTS: Characteristic morphology of senescent cells, together with SA-Ă□-gal activity and lack of BrdU incorporation, were observed in cells assumed to be senescing. However, in the majority of senescence-positive cases, SAHFs were not detected. Preliminary results also suggest the possible time shift between different markers and that senescence mechanisms may differ in regard to detectable phenotypic changes, which is definitely intriguing.
CONCLUSIONS: Undoubtly, our findings imply that spontaneous senescence occurs in glioma cells in vitro and that the combination of methods mentioned above may be useful in analysis of this extraordinary phenomenon. Profound research in this area, focused particularly on glioblastomas, may possibly be helpful in regard to diagnostics as well as therapeutic approaches. The precise mechanism of senescence in glial tumor cells remains elusive but simultaneously extremely interesting, since the fact that when three markers indicate senescence occurrence, another one is still absent.
ADD: This paper is approved by Local Ethical Committee.

Pharmaco-EEG based assessment of the topiramate and zonisamide influence on alcohol witdrawal syndrome development and course in rabbits.

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INTRODUCTION: Mechanisms of new-generation antiepileptic drugs (AEDs) are related to the neurotrasmission pathways engaged alcohol withdrawal syndrome (AWS) pathogenesis. Therefore, the efficiency of AEDs in AWS treatment has been recently studied. Particularly promising are the results of topiramate. Initial, promising findings regarding zonisamide require further investigation. Those drugs have also previously shown positive interaction with single dose of alcohol.
PURPOSE: The aim of the study is to investigate the influence of topiramate and zonisamide on rabbit EEG in the model of AWS development.
METHODS: The influence of the above drugs on EEG changes in repeatedly alcoholized rabbits with electrodes implemented to midbrain reticular formation (MRF), hippocampus (Hp), frontal cortex (FC) was investigated. Ethanol was given in solution at a dose of 25 mg/kg bw through 6 weeks. Topiramate (25 mg/kg bw p.o.) and zonisamide (25 mg/kg bw p.o.) were administered simultaneously with alcohol and additionaly throught the period of 2 weeks after alcohol cessation. EEG examination was performed after every week of the experiment.
RESULTS: Repeatedly given ethanol caused significant changes in EEG of the investigated brain regions, espessially MRF and Hp. More slow waves were seen, indicating its depressive influence. Contrastingly, in the periods of abstinence, the changes were of a different pattern, showing substantial neuronal hyperactivity in MRF and Hp.
Topiramate, administered with ethanol, decreased post-alcoholic changes in EEG (Hp and MRF) both during alcoholization and abstinence. Zonisamide alleviated post-alcoholic changes during alcoholization mainly in MRF and substantially decreased hyperactivity of all investigated brain regions during abstinence.

CONCLUSIONS: The results indicate beneficial influence of topiramate and zonisamide on AWS development and course. Its potential in AWS treatment needs to be further investigated.
ADD: This paper is approved by Local Ethical Committee.

Effects of X chromosome abnormalities on the response to growth hormone therapy in children with Turner syndrome

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INTRODUCTION: Turner syndrome (TS) is a condition caused by structural or numerical abnormalities of X chromosome. Growth deficiency is characteristic for patients with TS, and particular karyotype abnormalities of the X chromosome may be associated with different responsiveness to human growth hormone (hGH) therapy.
PURPOSE: The aim of the study was to determine the effect of TS karyotype on growth velocity during hGH therapy in TS.
METHODS: 23 TS patients treated with hGH with at least 2 years follow-up, were enrolled in a longitudinal observational study. Genetic analyses in order to evaluate the X chromosome structural or numerical abnormalities were performed and patients were categorized as X-monosomy (n=12), X-mosaicism with structural abnormalities of the second X (n=6), X-mosaicism without structural abnormalities of the second X (n=4) and structural abnormalities of the second X (n=1). Anthropometric parameters and height velocity (HV) were evaluated annually. Height and HV were expressed as standard deviations scores (SDS).
RESULTS: In our study the lowest mean HVSDS in the first year of hGH therapy in TS with X-monosomy in comparison to patients with other chromosome abnormalities (+1.83Âą2.39 vs. +4.4Âą2.59; p<0.002) was showed. In the second year of therapy the tendency of a lower mean HVSDS in patients with X-monosomy was noted, though without a statistical significance (p=0.243). No statistical difference in HVSDS in the first and second year of hGH therapy between patients with X-mosaicism with structural abnormalities of the second X, X-mosaicism without structural abnormalities of the second X and structural abnormalities of the second X were recorded.
CONCLUSIONS: X-monosomy determines a poorer growth response during the first year of hGH therapy in TS. The best response to hGH therapy during the first year was observed in TS patients with X-mosaicism with structural abnormalities of the second X.
ADD: This paper is approved by Local Ethical Committee.

The comparative analysis of the combination efficiency of acetylcysteine with melatonin in rats with gentamicin-induced nephropathy

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INTRODUCTION: Application of aminoglycoside antibiotics complicates by the development of nephrotoxicity on average in every 4th patient. It is due to the generation of cytotoxic oxygen radicals and manifests mainly damage epithelial cells lining the proximal convoluted tubules (PCT) cortical nephrons (CN). Until now, medicines are not developed for prevention and treatment of this pathology.
PURPOSE: To compare the combination efficiency of acetylcysteine with melatonin at its therapeutic and therapeutic-preventive use in rats with gentamicin-induced nephropathy.
METHODS: Experiments are made on 48 rats. The animals are divided into two series. In the first series we evaluated therapeutic use effects of combination in rats with aminoglycoside-induced nephropathy. For this purpose, we entered to the animals gentamicin (intraperitoneally, 60 mg/kg), melatonin (in stomach in the form of a suspension in starch slime, 10 mg/kg), and acetylcysteine (intraperitonealy, 40 mg/kg) once a day, 10 days. In the second series we assessed nephroprotective action at conditions of therapeutic-preventive use. For this purpose, beginning in 5 days prior to administration of gentamicin, we injected combination of acetylcysteine with melatonin, and then continued together with antibiotic as in the first series. We determined the degree of renal damage and analyzed the obtained results using nonparametric statistics (Mann-Whitney test).
RESULTS: Gentamicin causes the development of severe nephropathy. The combination of acetylcysteine with melatonin

shows nephroprotective action at therapeutic application. The undamaged PCT CN appear under its influence. The quantity of moderately damaged tubules increases because of decrease strongly damaged and dead. Its internal diameter decreases, and epitheliocytes height increases. The quantity of PCT CN and juxtamedullary nephrons (JN), straight tubules both types, filled with detritus, neprons decreases. Nephroprotective properties of combination of acetylcysteine with melatonin enhance at its therapeutic-preventive use. More pronounced reduction of the quantity of PCT CN and JN, filled with detritus, testify about it.
CONCLUSIONS: The combination of acetylcysteine with melatonin shows nephroprotective action in rats with gentamicin-induced nephropathy. It is more pronounced at therapeutic-preventive than therapeutic use.
ADD: This work is a part of the doctoral thesis.

Kartagener’s syndrome as a rare form of chronic rhinosinusitis with nasal polyps - case report

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IMOTIVATION: Chronic rhinosinusitis (CRS) accompanied by recurrent upper respiratory tract infections is a common reason of patients reporting to medical faculties. CRS is a significant medical problem. Nasal polyps are found in 20% of cases of CRS. Among others, disorders of ciliary motility lead to the development of CRS with nasal polyps. Kartagener’s syndrome qualifies as a primary ciliary dyskinesia. It is characterised by triad of symptoms: CRS with polyps, bronchiectases and complete or partial reversal of viscera.
DESCRIPTION: The aim of this study is to present a case of 29-year-old woman with recurrent respiratory tract infections lasting from early childhood. The patient was diagnosed with CRS with nasal polyps and nasal septum deviation at the age of 23 years. During her stay in the Department of Otolaryngology and Oncological Laryngology, Medical University of Lodz, endoscopic surgery of the paranasal sinuses and septoplasty were performed. The patient was diagnosed with primary ciliary dyskinesia - Kartagener’s syndrome.
CONCLUSIONS: Despite of the proper therapy of CRS with nasal polyps associated with recurrent respiratory tract infections, the treatment sometimes is not effective. In such cases the occurrence of a rare disease, including Kartagener’s syndrome, should be considered.

Psychotic symptoms after childbirth - postpartum psychosis or maybe something else? A case report.

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IMOTIVATION: Clinical suspicion of postpartum psychosis is often taken in the case when a few days after the childbirth mother shows symptoms of insomnia, anxiety, aversion to child or irrational suspicions. This disease requires treatment with antipsychotics, antideprressants or normothymics. But, it is always worth to look closer... Key words - "differential diagnosis".
DESCRIPTION: 27-year-old woman (pregnancy II, childbirth II) in 4th day after childbirth (birth uneventful - son, 3450g, 51cm, 8 points in the Apgar score) has become apathetic, did not take conversations with women in the same room or hospital medical staff (except complaints about the inability to fall asleep). In the 5th day, woman began to direct comments and suspicions to medical staff about "willingness to close her in this hospital forever". She did not agree to feeding her son. Obstetrician calls for psychiatrics consultations (with suspicion of pospartum psychosis) - however, consultation was

preceded by performing of basic laboratory tests which showed, inter alia, severe hypoglycemia (24 mg/dL). After administration of intravenous glucose infusion the patient's condition improved significantly.
The patient was consulted by endocrinologist - hormonal analysis showed rapid and significant increase in insulin level (40 pmol/l, N:<21 pmol/l), proinsulin (14 pmol/l, N:< 5 pmol/l) oraz C-peptide (350 pmol/l, N:<200 pmol/l). As a result of obtained results, insulinoma was suspected. Radiology tests confirmed the presense of 12mm tumor in the head of the pancreas. The patient was operated laparoscopically, successfully. Further test of resected piece of tumor revealed a benign insulinoma with a very strong expression for synaptophysin. After surgery, all symptoms have disappeared.
CONCLUSIONS: Symptoms of insulinoma during pregnancy may be masked due to increased secretion of placental hormones acting antagonistically to insulin - disease of the patient was asymptomatic during pregnancy, symptoms of neuroglycopenia appeared after childbirth.

The Box of Pandora. Avatar - case report

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IMOTIVATION: Pandora is a moon of gas giant called Polyphemus which circulates in orbit Alpha Centauri. It is located about 4.4 light years from Earth. It's a beautiful moon with abundant species of flora and fauna, absent anywhere else.
Pandora is inhabited by the Na'vi - humanoid bipeds, morphologically similar to humans but living like in the Neolithic period, using spears and simple tools. At the same time, they form a complex culture based on physical and spiritual bond between all creatures of Pandora and their god - Eywa. They call this bond Tsaheylu.
This beatiful world exists only in James Cameron's "Avatar". For some people - only in film, unfortunately.
DESCRIPTION: The aim of this paper is to present case of 21-year-old man who after seeing the James Cameron's film "Avatar" considered that Pandora is real and only this place is worth to living. He was looking for a way to Tsaheylu, get out from the Earth and escape into the Na'vi's world. Initially, he directed against close persons biting and suspicious comments about their desire to hide information about Pandora and to stop him on Earth. He did not accepted the informations provided by relatives. When he could not find any information about potential ways to go to Pandora, his mood and behaviour changed drastically. Suicidal thought and attempts appeared. Finally, the patient was admitted to Department of Psychiatry and Psychotherapy, to diagnosis and treatment.
CONCLUSIONS: Throughout the world there are reports of casuistic cases of depression, manic states or suicides after seeing specific movies. Undoubtedly, cinematography can significantly influence on physical and mental health of human.

Disseminated Intravascular Coagulation in Gorham-Stout Syndrome: A Rare Complication in a Rare Disease

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IMOTIVATION: A friend suffering from a rare genetic disease, which has affected her greatly, made us look into the many diseases, our highly evolved scientific world, knows very little about and we found DIC in Gorham-Stout syndrome.
DESCRIPTION: Disseminated Intravascular coagulation (DIC) is a rare, life-threatening condition of widespread thrombi formation in the microvasculature, leading to tissue hypoxia and bleeding. DIC may complicate the course of infections, burns, pregnancy, trauma, malignancy, shock and sepsis; therefore the treatment is focused on efficacious therapy of the underlying cause. Seldom, DIC may occur within hemangiomas, lymphangiomas, aortic aneurysms, and other vascular

malformations. Its development in children with Gorham-Stout syndrome and disseminated lymphangiomatosis has not yet been reported in literature.
Gorham-Stout syndrome (also known as â□□disappearing bone diseaseâ□□) is a rare disorder of unknown etiology manifesting as spontaneous replacement of bones by proliferating lymphatic and blood vessels. The treatment is targeted at symptoms and drugs inhibiting vessel proliferation and bone resorption.
Our aim is to present a unique pediatric case of disseminated lymphangiomatosis with Gorham-Stout syndrome complicated with chronic and acute life-threatening DIC and to review the literature to evaluate its optimal treatment options.
We present a retrospective case of a 7-year-old female admitted to the Pediatric Hematology ward of the Medical University of Gdansk in 2004 suspected of non-Hodgkin's lymphoma. She presented with multiple bruised, growing masses with visibly enlarged vessels located in inguinal, right thigh and suprapubic regions. Similar masses were detected in posterior mediastinum and pelvis, described CT as enlarged lymph nodes. Histopathology of repeated bone marrow, trephine and lymph nodes biopsies excluded malignancy and disseminated lymphangiomatosis was diagnosed. Due to disease progression with painful pelvic bones and vertebral involvement in MRI, the diagnosis of Gorham-Stout syndrome was suggested in 2006. The child developed chronic DIC with no clinical symptoms. In 2009 she developed life-threatening exacerbation of DIC manifesting as uncontrolled prolonged vaginal bleeding resulting in severe anemia and respiratory distress.

CONCLUSIONS: Since very few cases of Gorham-Stout syndrome have been described and none reported as complicated with DIC, with this case study we explore the management of this rare complication in a rare disease.

Drug-induced agranulocytosis simulating the neoplastic process - a case report

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IMOTIVATION: Neck phlegmon is a condition of a high mortality. It is usually caused by the infection in the head and neck region. It is often odontogenic. Symptoms depends on the extent of inflammation, the patient's general condition and comorbidities. Proper treatment involves: surgical procedures involving drainage of the neck tissue and antibiotic therapy but also tracheostomy and gastrostomy in some cases.
DESCRIPTION: 55 - year old woman was treated in the Department of Hematology, Medical University of Lodz for agranulocytosis caused by excessive NSAID usage. During the treatment the patient developed sore throat, fever, trismus, swallowing problems, pain in the neck and tumores on both sides of the neck. The patient was admitted to the Department of Otolaryngology and Oncological Laryngology, Medical University of Lodz. Physical examination and CT imaging revealed a massive infection with left-side hypopharynx necrosis and a penetration to the parapharyngeal space. The patient was qualified to the surgical treatment - the drainage of abscesses and phlegmon of the neck, tracheostomy and percutaneous endoscopic gastrostomy. The patient was also given the antibiotics. Rehabilitation was introduced with phoniatric exercise

CONCLUSIONS: The course of the neck phlegmon can be very rapid, unforseeable and pose lots of diagnostic problems.

Arteriovenous malformation of maxilla and mandible in 7 year old girl - case report

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IMOTIVATION: It is difficult and interesting case which requires multidisciplinary approach and includes craniofacial malformations involves maxilla and mandible and soft tissues of oral cavity.
DESCRIPTION: Arteriovenosus malformations (AVMs) are the rarest group of vascular malformations. The most common location of AVMs is head and neck (70% of cases). AVMs are fast-flow vascular lesions, made of arterial feeders and enlarged draining veins. They can occur immediately after birth or later in childhood. They never regress spontaneously, can be localized in skin, soft tissues or bones (or both) - causing facial swelling, asymmetry and deformation, unstable teeth, periodontal bleeding (with varying degrees of severity), resorption of teeth roots, bone resorption, gingival hypertrophy, soft tissue discoloration and skin or mucosal ulcers with secondary infection.

The aim of this report is to present a 7-years old girl with extensive arterio-venosus malformation of the maxilla and mandible

At the age of 3 years a deformation of the right side of mandible was observed. Tumor of mandible was diagnosed. Intraoperatively occurred massive bleeding required blood and plasma transfusion. Haemangioma mixtum mandibulae was diagnosed in histology. Part of primary teeth and secondary teeth buds was removed.

When patient was 5-years old recede of tooth 54 from occlusal surface was noticed by parents and massive bleeding from gingiva around tooth 54 occured, which caused hemorrhagic shock and fainting. Vascular malformation of alveolar process of the right side of maxilla was diagnosed. Right maxillary artery embolization was performed and after few days oral cavity sanitation was carried out. After one month removal of vascular lesion of the right maxilla was performed due to progression of the disease.

At the age of 5,5 years patient was presented to Department of Pediatric Surgery and Oncology Medical University of Lodz because oral cavity bleeding continued all the time. Extensive craniofacial malformation was diagnosed. The embolization of AVM of the right side of mandible with Histoacryl and Lipiodol was performed and 40% of lesion was obliterated. In the next month two more embolizations were performed. Regression of the lesion and pain relief was observed. 15% of lesion was still present.

After few months movability of primary left down canine tooth and repeated bleeding in left side of alveolar process area of the mandible was observed. In first day of hospitalization massive bleeding which required plasma transfusion and anticoagulation treatment occurred. Angiography and selective embolization on the left side of the mandible was performed. After two days left down canine tooth and first left down premolar tooth was extracted.

CONCLUSIONS: Presented case is an example of diagnostics and treatment difficulties in patients with arteriovenosus malformations that require a multidisciplinary approach.

Aspergillus sp - a difficult opponent in the fight for cure - a case report of two brothers with chronic granulomatous disease .

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IMOTIVATION: Chronic granulomatous disease (CGD) is a rare, inherited primary immunodeficiency (PI) state caused by failure of phagocytes to produce reactive oxygen forms and hence killing pathogens. The major clinical manifestations are recurrent or persistent bacterial and fungal infections - moslty caused by catalase-producing microorganisms, such as Aspergillus sp. The diagnose of CGD is based upon the inability of phagocytes to reduce nitroblue-tetrazolium -NBT.
DESCRIPTION: We present a case of two brothers- 8-months and 2,5- year old (while peripheral blood stem cell transplantation) who were diagnosed with X-CGD. Younger presented positive GM index (suspicion of aspergillosis) and older had invasive pulmonary aspergillosis before the procedure. Both BMT's were performed on the 26.05.2011 from the same, matched unrelated donor. After the procedure the general condition of 8-month old boy was gradually deteriorating. He suffered from cardiopulmonary insufficiency, high blood pressure and intracranial hypertension. In head CT (29.06.2011) extensive hypodense lesions were observed (suspicion of aspergillosis). In repeated CT (8.07) neurological progression was claimed. Despite application of majority available antifungals , the boy died. Older brother's condition was good. He was dismissed home on the 5.07 with recommendation to take voriconazole , due to invasive lung aspergillosis. The treatment was successful and was being continued for almost 2 years. In control chest CT studies (18.08.2011, 11.09.2012 and 26.08.2013) gradual regression of the lesions was observed. Now boy is healthy and in good general condition.
CONCLUSIONS: Fungal infections are frequently indicating severe PI. Affected patients are particularly susceptible to developing invasive aspergillosis. In described patients additional risk factors were protracted administration of immunosuppressive drugs and mega-dose chemotherapy preceding the BMTs. Despite successful treatment of the older boy (correct oxygen burst) aspergillosis required many months of therapy with voriconazole. It has proven to be an effective, safe and well-tolerated drug. It can be used as the gold standard in both the treatment and secondary prophylaxis of aspergillosis in patients undergoing transplants due to CGD.

Alarming neurological symptoms in a patient many years after the end of treatment for central nervous system tumor- diagnostic riddle.

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IMOTIVATION: Medulloblastoma is a primary malignancy of the central nervous system (CNS), mostly developing in the cerebellum. It is the most common malignant pediatric brain tumor (WHO GIV), associated with high risk of spreading through the cerebrospinal fluid .
DESCRIPTION: The boy aged 4 year was diagnosed because of frequent vomiting and headaches. Magnetic resonance imagining (MRI, 01.2001) revealed a localized tumor of the cerebellum. Macroscopically radical surgery was performed and medulloblastoma was histopatologically confirmed. The patient underwent multidrug chemotherapy and radiotherapy on cerebrospinal axis. Complete remission confirmed by MRI was achieved (7.05.2001) . Treatment was completed in 02.2002. In November 2012 (10 years after primary treatment) first alarming symptoms occurred: back pain and difficulty in walking. MRI study revealed multiple brain lesions (02.2013) and spinal cord lesions (03.2013). Metastatic relapse of the underlying disease was histopathologically confirmed and treatment was implemented. It included chemotherapy: temozolomide and irrinotecan. Control MRI study (04.2013), after two blocks of chemotherapy, confirmed stabilization of lesions. Due to poor tolerance of treatment (severe diarrhoea, bone marrow aplasia) chemotherapy was changed to: vincristine, etoposide and cyclophosphamide. After 3 cycles (07.2013) little regression of lesions was achieved. Patient was qualified for re-radiation therapy of the CNS (10.2013). In view of the good tolerance of treatment and stabilization of the neoplastic process, confirmed by the imagining studies, boy is now continuing the treatment.
CONCLUSIONS: Medulloblastoma can relapse after many years. Control period should be individually extended over five years after the end of therapy. In the treatment of the relapse it is important to implement systemic therapy.

Difficulties of diagnosis in mandibulofacial dystosis with microcephaly associated with esophageal artresia and choanal artresia - comparison of two clinical cases.

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IMOTIVATION: Heterozygous loss-of-function mutations in EFTUD2 cause Mandibulofacial Dysostosis (MFD). It is manifested in mandibular and malar hypoplasia, cleft palate and hearing loss. There are a few different MFD syndromes, among others MFD with microcephaly (MFDM), sometimes associated with other major defects like choanal (CA) or esophageal (EA) artesia and kidney or heart defects. In this paper two unrelated patients with MFDM associated with EA and CA are presented.
DESCRIPTION: First patient is female, 36 hbd, birth weight - 1720 g. Second patient - female, 37 hbd, birth weight 2400 g. Facial dysmorphism in both of them includes: microcephaly, asymmetric face, micrognatia, microtia, preauricular tags. At the first patient EA, cleft palate and hearing loss were diagnosed. Besides the patient has gastrostomy and tracheostomy. Second patient has CA hearing loss. At both of them psychomotor and speech development is delayed, but social contact is correct. These images caused, that among others CHARGE was considered after birth.
CONCLUSIONS: MFDM can be manifested with various clinical consequences, although some features of facial phenotype like ear abnormalities and microcephaly are distinctive, what both of the patients manifested. Although differences in major defects: EA and CA caused a delay in correct diagnose. That suggests MFDM as an important issue in diagnosing children with both facial malformation and EA or CA.

Gastrointestinal stromal tumor located in the uncinate process of the pancreas.

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IMOTIVATION: Gastrointestinal stromal tumors (GISTs) located in the pancreas are very rare lesions. So far, there were described only about twenty of such tumors. We would like to present a case of gastrointestinal stromal tumor located in the uncinate process of the pancreas treated successfully by laparoscopy technique.
DESCRIPTION: 55 - year-old man was admitted to the 2nd Department of General Surgery JUMC because of the 1.5 cm pancreas tumour founded accidentally in computer tomography of the abdomen. As a part of extended diagnostics of the lesion there were performed abdominal MRI and scintigraphy. The results of imaging studies suggested the presence of the neuroendocrine tumor of the uncinate process of the pancreas. The patient was qualified for laparoscopic surgery, during which the lesion was removed totally and sent for histopathological verification. Postoperative care proceeded in accordance with Enhaced Recovery After Surgery (ERAS). On the second day after the surgery the patient was discharged home. In the obtained result of the histopathological examination the GIST of 1.8 cm diameter was found. According to the Joensuu criteria the risk of progression was assessed as low. During the 6-month observation which included making control computed tomography of the abdomen there were no signs of tumor progression.
CONCLUSIONS: Although gastrointestinal stromal tumors located in the pancreas are extremely rare, they should be taken into consideration in the differential diagnosis of tumors of this organ. In their treatment minimally invasive techniques may be used.

This book originates form Juvenes Pro Medicina 2014 abstract submission system. Juvenes Pro Medicina 2014 was 52nd Polish and 10th International Annual Training & Scientific Medical Congress of Students' Scientific Society and Junior Doctors held between the 8th and the 10th of May 2014 in Lodz. The event was organized by Students' Scientific Society at the Medical University of Lodz (supervisor: prof. Ewa Sewerynek, chairman: Konrad Stawiski). Should you have any questions please visit www.stn.umed.pl or contact us via stn@stud.umed.lodz.pl.

Papillary fibroelastoma in patient with Kartagener syndrome - case report

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IMOTIVATION: Kartagener syndrome is condition inherited as an autosomal recessive trait and characterized by situs inversus, abnormalities in the protein structure of cilia, and chronic bronchiectasis and sinusitis. Kartagener syndrome is estimated to occur in 1 per 32,000 live births. Cardiac papillary fibroelastoma is a primary cardiac neoplasm that typically involves one of the valves of the heart. The clinical manifestations of this entity are not well described.

DESCRIPTION: 43-year old woman with diagnosed Kartagener syndrome was admitted to hospital with chest pain on the right side of the thorax unrelated to effort. Three weeks prior to admission she suffered from pneumonia and completed antibiotics two days before occurance of symptoms. Family history of coronary artery disease was contributory - her mother had myocardial infarction. Echocardiogram confirmed situs inversus and showed normal size of chambers and contractility. Ejection fraction was within norms (74%). On posterolateral cusp mobile echogenic mass was visible. Coronary catheterization revealed no abnormalities in epicardial coronary arteries. MRI confirmed echocardiogram findings and in addition revealed no signs of malignancy in cusp's mass. The image of lesion corresponded to papillary fibroelastoma. Patient in good condition was discharged from hospital with recommendation of systematic echocardiography.
CONCLUSIONS: This case proves that existence of one rare disease does not automatically excludes occurance of another equally uncommon illness. Additionally primary tumors of the heart should always be taken under consideration when diagnosing a patient with chest pain despite the rarity of appearance.

Patent foramen ovale as cause of cerebrovascular accident - case report

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IMOTIVATION: Paradoxical embolism, also known as crossed embolism, is a blood clot that crosses from the veins to the arterial blood system. This type of embolism often causes a stroke because the clot moves directly from the right side of the heart to the left through a defect in the septum. It then bypasses the lungs and is pumped straight toward the brain. Paradoxical embolism is an uncommon cause of cerebrovascular accidents, but it should always be taken uder consideration when diagnosing such problems. Especially when there are no certain evidence indicating other causes.
DESCRIPTION: 57-year old women with diagnosed patent foramen ovale (PFO) was admitted to hospital in order to qualify for the percutaneous closure of this defect. She had history of three cerebrovascular accidents which included transient ischemic attack of left cerebral hemisphere in 2011, cerebral infarction in 2013 and central retinal artery occlusion in 2014. In addition she suffered from hypercholesterolemia and chronic venous insufficiency in right lower limb. Transesophageal echocardiogram confirmed existence of PFO and passage of contrast bubbles from the right to left atrium during Valsalva maneuver. Left auricle was free of thrombi. Neurological consultation recognized PFO as a possible cause of cerebrovascular accidents. Patient was qualified for percutaneous closure of defect and awaits the treatment.
CONCLUSIONS: This case illustrates the importance of investigating the existence of a PFO in patients with cerebrovascular accidents. If paradoxical embolism is suspected percutaneous closure of PFO should be considered for secondary prevention of stroke.

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Calcifications in subcutaneous tissue in extreme obese infant with features of Albright syndrome, disturbances of calcium phosphate product, subclinical hypothyroidism- early manifestation of pseudohypoparathyroidism type 1a?

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IMOTIVATION: Extreme obesity in breast nourished infants is very rare and its hormonal and genetic causes should be always taken into consideration. Pseudohypoparathyroidism type Ia and Ic resulting from mutation of GNAS1 gene and tissue PTH resistence can occur with phenotype of Albright Syndrome, which consist of low height, obesity, traits of dysmorphy including shortening of metacarpal or metatarsal bones, mental retardation, bone dysplasia, hypothyroidism and hypogonadism.
DESCRIPTION: Six months old girl was referred to the pediatric endocrinologist due to skin calcifications, obesity and hypothyroidism. In medical history she was hospitalized in the Department of Oncology with suspicion of neoplasm due to the appearance of multiple skin nodules when she was 4 months. The biopsy of skin lesions revealed calcinosis cutis. Calcium phosphate product fluctuated between 51,3-73,95mg2/dl2. She is being diagnosed in regards to alleged hypoparathyroidism type 1a. Despite of this extreme obesity lack of growth acceleration was observed. At the age of 6/12 when she was still only breast nourished body weight was 13.2 kg, BMI much above 97 percentile. The ratio of the excess weight relative to the expected did not fall below 80%. Moreover patient presented with delayed motor development, primary hypothyroidism and gently marked dysmorphic features including shortening of metacarpal bones. Hiperinsulinism was excluded. Vitamin D and its metabolites, calcium, phosphate and magnesium were within normal ranges, although phosphorus were in the upper normal limit and phosphorus/calcium ratio was high. PTH levels were in the upper limits, they decreased slightly after vitamin D administration, and normalized after alfacalcidiol treatment. Moreover skin calcification process stopped after alfacalcidiol administration.
CONCLUSIONS: The most probable cause of described entity is pseudohypoparathyroidism. Loss-of-function GNAS1 mutation - type Ia and unknown mutation-type Ic are the most likely due to indicated traits of Albright syndrome. The result is subsequent PTH resistance, which can be poorly expressed in first years of life. Picture of the disease is diverse and can manifest a range of symptoms and cause diagnostic problems.

Don’t forget about tuberculosis - pediatric case reports

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IMOTIVATION: Tuberculosis is a common infectious disease caused by various strains of mycobacteria, usually Mycobacterium tuberculosis. It may attacks the lungs and also another organs in the body such a pleura, central nervous system, genitourinary system and the bones and joints. Tuberculosis is the most frequently in the age group >65year old. In children and adolescents this disease is almost always the result of contact with adult patients and it is rare.
DESCRIPTION: Girl’s history (16.5yo) started from unsuccessful four-week treatment of angina. Her stay in the Pediatrics Department in Bytom lasted from 27.04.2013 to 29.04.2013. Reported symptoms were sore throat, evening fever, feeling of â□□obstructionâ□□ in the throat, weakness and lack of appetite (lost 10kg in 1 month). In past (4 years ago) she had contact with tuberculosis. In physical examination enlarged lymph nodes, yellow coating on the tonsils and rhonchi were found. In lab tests - neutrophilia, high levels of OB and CRP, hyponatriemia, protein and potassium levels only slightly below to the lower limit of normal. USG examination was normal. Chest X-ray indicated miliary tuberculosis. CT examination confirmed diagnosis.
Second case focus on a boy (18yo) who was also in Pediatrics Department in Bytom, from 31.10.2013 to 20.11.2013. His symptoms at admission were high fever for 3 weeks, weakness and lack of appetite. In history - sinusitis 1 month ago and

unsure infection 2 weeks ago. In the past, the boy had contact with tuberculosis twice in 2012. Physical examination showed a small quantity of fat tissue. In lab tests high level of CRP and OB, neutrophilia. Chest X-ray revealed bilateral inflammation which persisted despite treatment. Bacteriological tests for tuberculosis performed - results were negative. CT indicated to tuberculosis.

CONCLUSIONS: However tuberculosis in childhood is rare it is necessary to examine patients if their symptoms indicate this disease. Tuberculosis is a disease that can not be ignored, cause may develop complications requiring hospitalization, life-threatening.

Churg Strauss syndrome as a rare cause of rhinosinusitis - a case report

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IMOTIVATION: Chronic rhinosinusitis (CRS) is a common condition recognised not only by the laryngologists. The diagnosis and treatment is often a result of cooperation of several specialists due to the complexity of the disease. CRS with or without nasal polyps can be also a symptom of various local or systemic diseases. We report two female patients with CRS suffering from Churg Strauss syndrome (CSS).
CSS, (eosinophilic granulomatosis with polyangiitis - EGPA), is a rare combination of systemic vasculitis accompanied by asthma, eosinophilia, chronic rhinosinusitis, neuropathy and eosinophilic tissue infiltration.
DESCRIPTION: A 54-year old woman with medical history significant for asthma, celiac disease and CRS without nasal polyps, gradually developed dyspnea, chest pain, palpitations and resting tremor of fingers and toes accompanied by eosinophilia. Following the development of these symptoms the biopsy of the nasal mucosa finally confirmed the CSS.
The second presented patient is a 40-year old woman with asthma, who had CSS diagnosed at age 28. Myocardial infarction was reported also at age 28. Recurrent acute otitis resulted in developing chronic otitis. She presents also CRS with nasal polyps. The patient underwent functional endoscopic sinus surgery (FEES) and myringotomy.

CONCLUSIONS: Although CSS is a very rare disease, in the patient with CRS presenting some other symptoms should be taken into consideration in the differentiation.

Long standing cyanosis in 3,5-year-old girl- case report.

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IMOTIVATION: We present a diagnostic way in a young child with central cyanosis and hypoxemia. The

girl was born to a healthy mother as a term neonate with 96% oxygen saturation levels.

Over time, the patient showed normal growth and development, however about one year

ago her parents have noticed signs of central cyanosis without any other disturbances in

general condition. The percutaneous oxygen saturation levels varied from 45 to 63% but the

blood oxygen saturation was higher - 70-75%. There was no positive reaction to an oxygen treatment.
DESCRIPTION: 3,5 year-old girl was admitted to the Department of Cardiology in a good general condition and with correct psychosomatic development. The major problem was related with low oxygen level in percutaneous and direct blood measurements. At first the congenital heart defects with right to left shunt were excluded - there was no signs of CHD in echocardiographic examination and no right to left shunt in pulmonary perfusion scintigraphy. There was also no abnormal vessels and intrapulmonary shunts in computed tomography. In laboratory examinations there was high level of methemoglobin (10%) with increase circulating plasma free hemoglobin (50mg%). Additionally normal values of hemoglobin, hematocrit, erythrocyte osmotic resistance with no signs of acidosis were observed. During intravenous administration of methylene blue we observed abnormal reaction with increasing methemoglobin, free plasma hemoglobin and emerald skin color. There was no changes in saturation and acid-base balance. After hematologic consultation several enzymes blood levels were measured - i.e. dehydrogenase glucose 6 phosphate and methemoglobin reductase. As far all reached results were reported normal.
CONCLUSIONS: In each case persistent cyanosis, even in an otherwise well child, should be carefully investigated, because of important and potentially reversible cardiac, vascular, respiratory and hematologic causes. In presented case the specific metabolic reason for all symptoms is still unknown however there is still a lot of functional deficits of erythrocyte's enzymes like methemoglobin reductase which still are unable to detect.

Transcatheter closure of post-myocardial infarction ventricular septal defect

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IMOTIVATION: Ventricular septal rupture (VSR) is one of the most serious complications of myocardial infarction. It is rare and in recent years development of reperfusion therapy additionally contributed to its prevalence reduction. The primary method of diagnosis is echocardiography. The conservative therapy is associated with high mortality and surgical treatment

remains a golden standard.
DESCRIPTION: We present two patients, who suffered from post-myocardial infarction ventricular septal defect and were treated with transcatheter closure device.
CONCLUSIONS: Percutaneous closure of VSR resulting from myocardial infarction is an interesting and promising therapeutic option in this group of patients.

A boy with congenital cataract of undiagnosed cause

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IMOTIVATION: Congenital cataract constitutes a serious therapeutic problem because of possible complications among which the risk of vision loss and amblyopia are the most crucial. Both of them may develop despite quick introduction of the therapy.
In addition, this case report indicates that aetiology of congenital cataract turns out to be multifactorial and that not all the factors are well discovered.

DESCRIPTION: This paper describes a case of a boy that was born apparently healthy.
The delivery took place in the forty-first week of pregnancy by Caesarean section due to intra-uterine asphyxia of the foetus. After birth, his psychosomatic development seemed to be normal. First behavioural disturbances were noticed in the fifth month, when parents noticed poor eye contact. On ophthalmologic examination photophobia and nystagmus were found, as well as bilateral cataracts. The boy underwent urgent sequential surgical removal of cataract in both eyes.
Afterwards, various tests were performed to detect the cause of cataract and to exclude other diseases. Medical history during pregnancy was unrevealing, there was no intra-uterine infection, so the possibility of cataract being a complication of rubella was rejected. Fontanelle sonography did not reveal any apparent changes. Visual Evoked Potentials were within normal limits. Karyotype analysis revealed a normal karyotype. Magnetic resonance showed normal structures of central nervous system. Levels of organic acids in urea, isoforms of transferrin and biotinidase in blood were normal. Galactosaemia was excluded.
At present, the boy is four years old, his development is retarded, he has microcephaly, he does not speak and he needs constant rehabilitation.
Early photos revealed that the lenses became opaque in the third month of life. Parents remembered that in that period the boy was vaccinated with Infanrix IPV + Hib. The vaccine included antigens against diphtheria, tetanus, pertussis, poliomyelitis and Haemophilus influenzae type b.

CONCLUSIONS: There have already been many cases of adverse effects that appeared after combined vaccinations. Parents from all over the world report a connection between deterioration of children's health and vaccinations. Unfortunately it is almost impossible to prove any harmful influence of vaccines.
To conclude, it will always remain unexplained whether or not vaccination caused the described problems. Such a possibility cannot be ruled out, however, it is impossible to confirm it with certainty.

Severe complications of Colles fracture - case report

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IMOTIVATION: Colles fracture, which stands for the term of distal radius fracture where broken fragment of radius is leaned upwards, is one of the most common diseases on orthopedic and hand surgery wards. Although, it might occur among every age group of adult patients, elderly and osteoporotic patients are the most affected ones. Management depends on the severity of the fracture. An undisplaced fracture might be treated with a cast alone, whereas higher amount of instability criteria increases the likelihood of operative treatment. Only a few studies suggest, that even 31% of patients could suffer from complications of the former treatment, such as persistent neuropathies, radiocarpal or radio-ulnar arthrosis and malposition-malunion. The other, less frequent, are Volkmann's ischemia, tendon rupture, and shoulder-hand syndrome.
DESCRIPTION: The patient, female, middle-aged, was admitted to the Clinic of Hand Surgery with the edema of right hand. The past medical history of this patient included Colles fracture treated with the cast in one of the municipal hospitals. The patient did not fulfilled the recommendations, which required the control X-ray of the right wrist and visit to the doctor in outpatient clinic. On the day of admission, the hand was swollen and the skin got necrotic signs. Blood pressure was no measurable on any of hand arteries. Furthermore, the patient was in preschock state. Despite transhumeral amputation of right upper extremity and applied antibiotic therapy, the condition of the patient did not improved. The patient developed septical shock and was transferred to the Clinic of Anesthesiology and Intensive Therapy. After few days, despite of intensive volume resuscitation and antibiotic administration, the patient died.
CONCLUSIONS: This case is presented to draw attention to the worst possible complications, which might occur in patient not only with Colles fracture, but also with other concerning extremities.
Furthermore, this case might remind the importance of outpatient treatment in orthopedics.

Modern diagnostic and therapeutic techniques used in the treatment of septic shock caused by Legionella pneumophila.

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IMOTIVATION: Legionnaires' disease is caused by a Gram-negative bacteria Legionella pneumophila. It is a form of pneumonia sometimes with gastrointestinal and neurological symptoms. According to the ECDC, the incidence rate is 0,01-3,43 per 100 000 residents in the monitored countries. However it is estimated that it is detected in only 5%. A British study showed that despite the low overall incidence among patients with severe CAP legionellosis occurs in 14-37% of cases. The disease mortality rate varies to 80% in patients with risk factors and is a consequence of complications such as respiratory and renal failure or MODS. Crucial element in the cascade of systemic reaction is bacterial endotoxin. In the presented case, in addition to the standard therapeutic method an innovative method for the endotoxin elimination using Oxiris hemofilter was applied. According to our knowledge, it is one of the first reported cases worldwide.
DESCRIPTION: 62-year-old man (APACHEII 22; SOFA 13) hospitalized in a local hospital because of increasing dyspnea. After exclusion of the pulmonary embolism he was transferred due to the symptoms of AKI to the Department of Nephrology, where septic shock was diagnosed and further treatment was continued in the ICU. Circulatory and respiratory inefficient patient (BP 90/40 mmHg; SaO2 88%) required noradrenaline infusion, endotracheal intubation and mechanical lung ventilation. An empirical antibiotic therapy was implemented (ceftriaxone, clarithromycin). On the second day Legionella pneumophila serotype 1 infection was diagnosed on the basis of its antigen detected in the urine. Due to the the increasing symptoms of AKI a CVVHDF (using an Oxiris filter to eliminate endotoxins) was applied. The therapy efficacy was monitored by measuring the endotoxin in the patient's blood (before: 0.67 EAU, after 24h: 0.37 EAU). The patient gradually improved what enabled him to be transfered back to the Department of Nephrology after 22 days of treatment in the ICU.
CONCLUSIONS: Early identification of Legionella pneumophila antigen in urine, rapid implementation of appropriate antibiotic therapy and standard treatment of septic shock, as well as using non-standard methods of extracorporeal elimination of endotoxin allowed to cure a patient with multiple organ failure due to L. pneumophila.

Merkel Cell Carcinoma (MCC) - a case report.

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IMOTIVATION: Merkel cell carcinoma (MCC) is a rare neuroendocrine small-cell tumor of skin that typically arises on sun-exposed areas. MCC is associated with poor prognosis and seem to have a more aggressive nature when is found in atypical locations. In recent years, MCC incidence rates have increased of about 8 % per year. The mean age of patients at the time of initial diagnosis is about 70 years.
DESCRIPTION: A 77-year-old female patient with red slow-growing tumor in the area of the right knee, located in the skin and subcutaneous tissue, measuring 4 x 3 cm was admitted to BiaĹ□ystok Oncology Center. Routine hematological results and imaging data (ECG) showed no abnormalities. The pathological analysis of fine needle aspiration biopsy (FNAB) showed a benign tumor tissue. Immunohistochemically, the tumor cells were positive for Pan CK, CK20, neuron-specific enolase, chromogranin, and Ki-67 (present in 90% of tumor cells) that let us to confirm MCC. To exclude the different cells origin of this tumor, other immunohistochemical staining were done: TTF1 (-), CD3 (-), CD20 (-), LCA (-), CD117 (-), Di Pas (-). The patient underwent surgery, which included tumor and adequate wide margin of healthy tissue.
CONCLUSIONS: The pathomorphological analysis of fine-needle aspiration biopsy of the tumor contributed to the diagnosis of MCC in the patient. The incidence of this rare cancer increases significantly. Due to the high local recurrence rate, high probability of metastasis and high mortality, the treatment of choice is aggressive resection.

Non-specific gastrointestinal symptoms associated with systematic mastocytosis-case report

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IMOTIVATION: Introduction:
Systemic mastocytosis (SM), often termed systemic mast cell disease, is a myeloproliferative neoplasm characterized by infiltration of clonally derived mast cells in different tissues, including bone marrow, skin, the gastrointestinal tract, the liver, and the spleen. The clinical presentation of SM can range from asymptomatic to multiorgan dysfunction in aggressive cases. The gastrointestinal (GI) tract can be affected and symptoms related to GI involvement are often nonspecific. Gastrointestinal involvement is seen in 70% to 80% of patients with SM.
Aim:
The aim of this paper is to present the diagnostic tract of a patient with nonspecific gastrointestinal symptoms to the definitive diagnosis of systemic mastocitosis.

DESCRIPTION: We report a case of a 34 year-old men with non-specific symptoms of stomach pain, nausea, diarrhea and weight loss of more than 10 kg over the last year. Two days before admission, he suffered from mild vomiting coffee - grounds. During physical examination urticaria pigmentosa was observed on the entire body surface, which was described for the first time in 2004. Laboratory findings showed an elevated white blood count with eosinophilia, low concentrations of total cholesterol, LDL and HDL cholesterol, slightly accelerated ESR. Another analitical tests were unremarkable. The results of imaging examinations in further diagnosis revealed hepato - splenomegalia and enlarged intraperitenal lymph nodes. Upper gastrointestinal endoscopy showed active chronic gastritis. Helicobacter pylorii (+). Colonoscopy-rectal ulcer.The level of serum tryptase was significantly elevated: 930 ug/l [<11,4]. Based on the result of the bone marrow biopsy we recognized: systemic mastocytosis with an associated clonal hematological non-mast cell lineage disease (SM-AHNMD).
CONCLUSIONS: The diagnosis of mastocytosis is based on clinical, biological, histological and molecular international

criteria. The symptoms related to GI involvement, however frequent, are often nonspecific, thus the diagnosis of SM with primarily GI presentation can be really challenging and requires high index of suspicion.

Patient with vascular type od Ehlers-Danlos syndrome in gynecology

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IMOTIVATION: As students interested in a field of gynecology and obstetrics we tried to find an aspect, which is not very common, but therefore more interesting.
DESCRIPTION: Ehlers-Danlos syndrome is a heterogeneous clinical group of connective tissue genetic disorder cause by the defect in the structure, production or processing of collagen. They are classified into several primary types, most of which characterize by hyperflexibility of skin and joints, increased vulnerability to trauma and wound healing. Impairments are also present in internal organs. The most severe is type IV, called vascular, which affects about 5 to 10% of cases. It characterizes with blood vessels fragility and proneness to tearing of vessels and ruptures of digestive tract walls or uterus. The issue of Ehlers-Danlos syndrome is therefore interesting in the fields of both gynecology and genetics.
A case report is presented of patient with vascular type of Ehlers-Danlos syndrome. Disorder was diagnosed in her 26th year of life as a result of sigmoid rupture with fecal peritonitis. In July 2013 she was hospitalized at Perinatology Department of Maurycy Madurowicz Memorial Hospital in Lodz, where at 28 weeks' gestation she delivered a daughter by caesarean section due to preterm passing out of amniotic fluid.
Contrary to the other types of disorder type IV seems to be associated with more often complications of pregnancy, labor and post-partum period. These are rupture of uterus, intestine, major arteries and post-partum uterine hemorrhage. According to the literature maternal mortality stands at the rate of 10 to 25 percent. Furthermore there is a tendency to preterm delivery, which causes a discussion about the necessity of elective cesarean section at 32 weeks' gestation. Moreover in the course of the disorder often occur incontinence and endometriosis.
CONCLUSIONS: Patients with Ehlers-Danlos syndrome should be treated with special gynecological and obstetric care. The issue of birth control seems to be important due to possibility of complications in the period of pregnancy and the risk of disorder's inheritance.

55-year-old male with non-ST segment elevation myocardial infarction with angiographically marginal sclerotic lesions.

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IMOTIVATION: Dynamic development of invasive cardiology techniques drastically improved diagnostic and therapeutic abilities for patients hospitalized due to aggravations of coronary artery disease. Coronarography is well known as 'golden' standard for anatomical assessment of stenosis in coronary arteries. However, it is necessary to evaluate significance of marginal lesions. The recommended method to assess function of the stenotic coronary artery during angiography is fractional flow reserve (FFR).
DESCRIPTION: We present case of 50-year-old male hospitalized due to multiple non-ST segment elevation myocardial infarctions (NSTEMI). Patient was finally diagnosed correctly by applying advanced invasive cardiology techniques especially FFR.
CONCLUSIONS: Functional assessment in coronary artery obtained by measuring fractional flow reserve allow to arrange

angiographically marginal sclerotic lesions in coronary arteries. In clinical practice, this arrangement determines the therapeutic decisions.

Autism spectrum disorder in children

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IMOTIVATION: Motivation: it still happens that diagnose and treatment of autism take place too late.

The families of autistic children need a psychotherapeutic support.
DESCRIPTION: Autism is a disorder of neural development characterized by triad of symptoms: impairments in social interaction, impairments in communication and by restricted, repetitive or stereotyped behavior. We would like to introduce three cases of mothers with their autistic children. Contact with mothers has been made through National Association of Autism (Krajowe Towarzystwo Autyzmu) in Bydgoszcz. The women willingly give an interview, all of whom attached great importance to lack of knowledge about autism before their children had a disorder. The first signs were noticed usually in the family. The mothers who noticed the symptoms of the autism did not know what to do and where to go with their problem. The knowledge about autism they derived mainly from the internet. Their first reactions were: shock, sadness, disbelief and bitterness. The women notice signs of disorder of neural development in different years of their child's life (9,12,18 months of age). The most bother signs were: head-banging, body rolling, screaming, lack of special attachment between mother and children, avoiding eye contact, pain hypersensitivity or pain hyposensitivity. The majority of mothers of autistic children usually get support from their families after the diagnosis of autism. Unfortunately, some of them have to face the problem alone. However, the support from siblings of an autistic child is very meaningful. All of the mothers admitted that contact with National Association of Autism (Krajowe Towarzystwo Autyzmu) was very important and helpful. The women emphasized the need to talk about the problems of how to bring up the autistic child and the need to get and give the support from each other and from the therapists. All mothers stated that it is essential to break the barrier of shame of going out to the public with an autistic child. They also emphasized that acceptance of the disordered child in the family is an important step to effective therapy. The engagement and support of the husband had also an influence on mother's motivation to take the struggle with autism.
CONCLUSIONS: Early diagnosis of autism is essential and determines the beginning of therapy and achieves better results in terms of the relief of symptoms.
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Unilateral, bloody nipple discharge in a 4-month old boy-attempt of the treatment with l-ascorbic acid

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IMOTIVATION: Bloody nipple discharge (BDN) is very rare in infants and considerable stressful to their parents. In contrast to adult patients, BND in children is almost always the sign of a begin process and usually resolves spontaneously without any treatment. Pharmacological medication of BND, despite of antibiotic therapy in advisable cases, is not described in the literature. A case of recurrent BDN treated with l-ascorbic acid (vitamin C, AA) with good result is reported.

DESCRIPTION: A healthy 4 month-old boy presented with bloody discharge from the right nipple of 1 week duration. In physical examination discreet mass was palpable bilaterally with no signs of inflammation or injury of the right nipple. Ultrasonography confirmed gynecomastia, no pathology in abdomen and pelvis was detected. Only Staphylocosus saprophiticus was cultured form the bloody discharge. Cytology showed erythrocytes, macrophages and no malignancy. Morphology, coagulation and hormone tests were within normal ranges, but there was elevated level of liver transaminases (AST-76 IU/l, ALT-90 IU/l) and alfa-fetoprotein (maximum AFP-84 ÂĭĝĝĬĝ/l). Discharge decreased after few days and resolved completely after 4 weeks of high dose of AA treatment. When the dose of AA was reduced, BND appeared again and ceased after medication with previous amount. The treatment was discontinued after 2 months. After that time, 2 single episodes of BND were reported, which again disappeared after AA treatment. Simultaneously normalization of liver tests and a gradual decrease of AFP values (up to 37 ÂĭĝĝĬĝ/l) were observed.
CONCLUSIONS: AA is an important enzymatic cofactor and antioxidant. According to the dependency between AA level and BND in recent case, we can hypothesize that it may be a good agent to stop the BND. However a placebo effect cannot be excluded. Small decrease in vitamin K dependent coagulation factors associated with liver dysfunction confirmed by elevation of AFP, may be the additional cause of bloody discharge.

Anticoagulation therapy in therapeutic hypothermia - case report

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IMOTIVATION: Therapeutic hypothermia is now becoming a routine procedure used in treatment of patients after cardiac arrest and severe cranio-cerebral injuries, which aims to minimalize cerebral metabolism as well as oxygen consumption by brain tissue. This method increases survivability and reduces the level of permanent neurological damages in the above - mentioned groups of patients. However, with implementation of this new procedure in the Intensive Care Units, new problems have appeared. Controlled hypothermia leads to temperature induced hypercoagulability and makes balanced anticoagulation therapy really complex
DESCRIPTION: The patient, age 24, was admitted to the Clinic of Anesthesiology and Intensive Therapy after a motorcycle accident, with symptoms of hemorrhagic contusion of the frontal and temporal lobe. On admission the GCS was recorded as 5. On the first day, responding to acutely raising intracranial pressure, osmotherapy with mannitol was instituted. ICP was continuously measured with invasive method. At the same time, using CoolGuard 3000 device, therapeutic hypothermia was being administered. On the 9th day, patient was extubated. During the neurological examination there was no evidence of neurological damages, patient was verbally and logically responsive.. On the 15th day, semi-consciousness and dyspnea occurred. After a few hours cardiac arrest occured. Massive pulmonary embolism was confirmed by an angio-CT scan. Despite administering thrombolytic therapy, patient died.
CONCLUSIONS: This case is presented in order to draw attention to the difficulties of using anticoagulation therapy in hypercoagulated patients in controlled hypothermia and co-existing intracranial haemorrhage.

Rapid nodal metastases in young woman with thin(pT1a) skin melanoma- case report and the literature review.

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IMOTIVATION: Cutaneous malignant melanoma(CMM) is a malignant tumor that begins in melanocytes which is one of the

most malignant human tumors. In 80% it develops within the skin exposed to sunlight - UVB radiation is the main factor of malignant melanoma progression. Frequency and mortality rate of melanoma malignum incidents have rapidly increased during recent decades. Number of CMM cases doubles every 10 years and now it's one of the most increasing cancer in white populations.
DESCRIPTION: We report a case of a 32 year-old white woman admitted to the Department of Surgical Oncology, Medical University of Lodz with metastatic melanoma in right axillary lymph nodes developed 5 month after excision of thin skin melanoma of the trunk(SSM, pT1a, Breslow 1mm). Primary tumor was treated by excision biopsy and reexcision with 1cm margin. During the follow-up the tumor in the right axilla was diagnosed as metastatic disease (fine-needle biopsy). The excision of the tumor and radical lymphadenectomy was performed. The histopathological examination revealed a huge 8cm metastatic melanoma and right axillary lymph nodes without metastases. The patient was qualified to the adiuvant radiotheraphy.
CONCLUSIONS: Breslow thickness is a good predictor of melanoma course, but it shouldn't be used alone. Approximately 70% of newly diagnosed melanomas are thin, about 1mm or less. 9,4% of these patients will later develop recurrent disease. Long-term follow-up evaluation showed 10 year actuarial survival rates of 83 to 97% associated with thin melanoma. In case of thin melanoma metastases develop rarely and the proceeding in patients with pT1a melanoma relies on change excision with 1cm margin. Lymph nodes metastases cases in patients with thin skin melanoma ranges from 0-13,5%.

â□□An Unusual Complication Resulting From an Invasive Intrauterine Therapyâ□□

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IMOTIVATION: Congenital cystic adenomatoid malformation (CCAM) is a rare lung malformation, which might have different clinical course: from fetal edema and severe degree of lung development disorders to asymptomatic course. Surgical treatment, involving the resection of bed lung portion, is usually a procedure of choice in children with permanent pulmonary lesions . Diagnosing CCAM by a routine prenatal ultrasound examination is of great significance in terms of prognosis of the pregnancy course, the delivery, and the child's health. It also enables the decompression of fluid spaces by inserting a pulmonary-amniotic shunt. Prematurity, premature separation of placenta, uterine rupture , as well as intrauterine infections may be a complication of the invasive therapy.
DESCRIPTION: A 34-year-old pregnant woman has been examined using obstetrical sonography since the first trimester. The abnormalities in fetus have been detected in the 24th week of pregnancy: the right lung has been reported as â□□largeâ□□ with hyperechogenic areas and numerous cysts up to 2 cm in size. Thus, the pregnant woman was referred from Cracow to the Polish Mother's Memorial Hospital (ICZMP)in Lodz. In the referral center for fetal malformations the patient was diagnosed at the 25 th week of pregnancy as right-sided CALM type II. Decompression of fluid areas in the right lung has been performed at the 27th week of pregnancy by percutaneous â□□needlingâ□□. Reaccumulating of fluid has been observed at the 28 th week , hence, a pulmonary-amniotic shunt has been inserted. The echocardiography examination, carried out after the procedure, has showed no abnormalities of the cardiovascular function in fetus , however, there were some slight features implying the RV systolic and LV diastolic function disorders. At the 32nd week, the ultrasound and ECHO examination revealed normal biometry, cystic spaces decreasing in size, and the improvement of hemodynamic condition. The pregnancy was carried up to term and by elective Cesarean/ C-section, a newborn boy was delivered with birth weight 3840 g and Apgar score of 10. There was no shunt visible within the afterbirth nor in the newborn's thorax skin. The X-ray examination of the chest showed, however, the presence of a shunt in the right pleural cavity. At the age of 6 years, the patient had a shunt removed during thoracoscopy.
CONCLUSIONS: One of the complications resulting from prenatal invasive therapy might be the displacement of a shunt into the patient tissues.

Difficulties in the treatment of Obsessive- Compulsive Disorder

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IMOTIVATION: Obsessions and compulsions are interesting and diagnostically difficult clinical symptoms of various psychiatric disorders that require reliable clinical diagnosis.
DESCRIPTION: We would like to present case-report of 45 years old patient, who has been psychiatrically treated because of compulsive disorder symptoms since the age of 18 years. Before disease, patient showed features of obsessive- compulsive and perfectionistic personality, always liked order . In 18 years, the patient experienced a suicide death of his friend, responded to this event severe depression with obsessive thoughts and actions, that persist to this day. Initially, the patient was treated with antidepressants drugs on obsessive-compulsive disorder: sertraline at a dose of 100mg/day , clomipramine 225 mg/day , the treatment is brought partial effect. In subsequent years appeared psychotic symptoms: delusions of reference, control, mind being read, persecutory, the thinking was accelerated, there were thoughts and suicidal tendencies. Delusions, obsessive thoughts and actions focused on the content on the religious sphere, the presence of Satan, the impact of the evil spirit of life patients, moreover, the patient compulsively checking the gas taps, wash their hands, checking close the door. In the following years included the following medication: olanzapine at a dose of 30 mg/day, risperidone at a dose of 8 mg/day, aripiprazole 15 mg/day, quetiapine at a dose 800mg/day, clozapine at a dose 525mg/dobÄ□. The patient developed hyperprolactinemia symptoms (PRL = 2207 mIU/L) during treatment with olanzapine and risperidone, antipsychotics discontinued, included treatment with quetiapine and aripiprazole to good effect. Despite the use of neuroleptics patient required regular cognitive-behavioral therapy directed to decrease signs of obsessive thoughts and actions and refer to the current situation of the patient's family.

CONCLUSIONS: The present case-report shows the difficulty of patient diagnostic and therapeutic obsessive-compulsive symptoms. In analyzing the case, we find that it is important to long-term observation of patients with these symptoms , because they can provide not only the clinical anxiety disorders, but also may be early symptoms of schizophrenia or be a permanent symptom of it, which change pharmacotherapy and psychotherapy.

A difficult patient with "Dual Psychiatric Diagnosis"

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IMOTIVATION: The difficulty of diagnosis of schizophrenia in relation to drug use which may be associated with psychotic disorders.
DESCRIPTION: Patient aged 33 was referred to the psychiatry clinic in Bydgoszcz from another psychiatric treatment center to verify the diagnosis - paranoid schizophrenia . In childhood showed symptoms : abnormal dreams, anxiety, behavioral and emotional disorders without psychotic symptoms. In the 3rd grade of high school began to take drugs. After 3 months of taking psychotic symptoms appeared which were the reason of first hospitalization. He spend six months in the addictions ward. After treatment, received a pension, and didnt show desire for education. Later delusions of grandiosity, reading thoughts joined to hallucinations. During his hospitalization had various diagnosis. A year ago, was admitted to the Psychiatric Clinic in order to verify the diagnosis of schizophrenia. During his stay in a closed psychiatric hospital his neuroleptic dose was reduced. The patient showed psychotic symptoms. He jumped out of the window from the 3rd floor, he had not suicidal thoughts. He did it because:" I spoke with the devil Mephisto. Mafiosi told me to jump out to save my life". The fall resulted in broken leg. After surgery, he was transferred from Orthopedics Clinic to the Psychiatric Clinic. On the admission patient turned out not to take psychoactive substances for 2 years. In psychiatry clinic received: Depakine Chrono 800 mg, Risperdal 1mg , Zolafren 15mg , Akineton 2mg. During 8 weeks of hospitalization, remission of psychotic symptoms

occured: visual and auditory halucinations, persecutory delusions. The patient still has delusional attitude and incomplete criticism. Patient had a neuropsychiatric examination and MR which excluded organic substrate of psychotic disorders. In addition, after the remission of psychotic symptoms he participated in addiction therapy.
CONCLUSIONS: The patient was diagnosed with â□□Dual Psychiatric Diagnosis: Substance Abuse and Mental Illness - Paranoid Schizophreniaâ□□.

Hemihepatectomy combined with preoperative chemotherapy as a novel treatment strategy for primary hepatic diffuse large B- cell lymphoma (DLBCL): a case report.

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IMOTIVATION: Primary hepatic lymphoma is rare and represents approximately 0.016% of all cases of non-Hodgkin's lymphoma. About 90% of primary hepatic lymphoma are diffuse large B-cell lymphoma. Hepatic immune microenvironment and many liver parenchyma features may account for the rarity of such a location of this lymphoma. Being rare pathology, with yet vaguely known pathomechanism, the optimal therapy for primary hepatic DLBCL (PHL) is still unclear and the outcomes are uncertain. Our case revealed that good prognosis of PHL can be obtained by preoperative chemotherapy combined with radical surgical treatment (hemihepatectomy) of the remnant disease.
DESCRIPTION: Gastrointestinal tract is the most common extranodal site involved by lymphoma with the majority being non-Hodgkin type. Such a lymphoma is usually secondary to the widespread nodal diseases, while primary gastrointestinal lymphoma is rare. Diffuse large B-cell lymphoma (DLBCL) is the most common subtype of non-Hodgkin's lymphomas, accounts for 30% to 40% and represents clinically and histologically diverse group of malignancies including primary DLBCL of the liver that occurs in 0.4% of extranodal non-Hodgkin's and approximately 0.01% of all non-Hondgkin's lymphoma cases. Here we present a case of 45 years old female patient with the primary DLBCL of liver. Patient, presented with with fatigue, decreased appetite and unintentional weight loss of 5 kg over 1 month, was admitted to the Department of General and Transplant Surgery of Barlicki University Hospital. CT scan confirmed two well- defined liver tumors of 40 mm and 90 mm in diameter. The patient was qualified for the surgical treatment with two-stage hepatectomy and portal branch ligation. However, intraoperatively tumors were found to be locally irresectable. Thus, only liver biopsy was performed. After histopathological evaluation of tumor samples, the patient received one cycle of R-CHOP regimen. She responded partially to treatment, as another CT scan showed complete regression of one tumor. The patient underwent right hemihepatectomy with cholecystectomy. Up to date, the patient has been followed-up for 3 years and remained disease-free with no evidence of local recurrence, metachronic primary tumor or distant metastases.
CONCLUSIONS: The case presented hereby exhibits the efficiency of the R-CHOP regimen combined with the hemihepatectomy. As the primary DLBCL of liver is a relatively rare disease, it is paramount to reach consensus about therapeutic approach to such a lymphoma, basing on the cases available. Our case not only advocates for the application of R-CHOP, which is globally recognized gold standard for non- Hodgkin's lymphoma, but also radical liver surgery of remnant disease. After 3 years follow-up our patient remains disease-free that is better than the median overall survival of 23 months presented in the literature.

Juvenile Idiopathic Arthritis systemic onset (sJIA) successfully treated with inhibitor IL-6 receptor.

This book originates form Juvenes Pro Medicina 2014 abstract submission system. Juvenes Pro Medicina 2014 was 52nd Polish and 10th International Annual Training & Scientific Medical Congress of Students' Scientific Society and Junior Doctors held between the 8th and the 10th of May 2014 in Lodz. The event was organized by Students' Scientific Society at the Medical University of Lodz (supervisor: prof. Ewa Sewerynek, chairman: Konrad Stawiski). Should you have any questions please visit www.stn.umed.pl or contact us via stn@stud.umed.lodz.pl.

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IMOTIVATION: Juvenile Idiopathic Arthritis (JIA) is the most frequent childhood rheumatoid disease. The most serious clinical form is systemic onset of this disease. The main symptoms besides arthritis are systemic features like spiking fever, skin rash, hepatosplenomegaly or serositis. sJIA is classified as autoinflammatory disease. In the pathogenesis of sJIA central role play the innate immune system disturbances. The main effector cells are monocytes, neutrophils, macrophages. sJIA is characterized by predominance of pro-inflammatory cytokines: Interleukin-1, Interleukin -6, Interleukin -18 and S-100 protein. At the same time anty-inflammatory response with Interleukin-10 is activated. Specific pathogenesis reflects in the treatment strategy.
DESCRIPTION: We present a case of a 5 years old girl who was admitted to the hospital with recurrent fevers lasting two weeks with coexisting limbs pain. The patient was hospitalized in the Department of Pediatric Lung Diseases and Rheumatology. The examination found right wrist inflammation, generalized lymphadenopathy and hepatosplenomegaly. The blood analysis showed high level of acute phase reactants (ESR, CRP, ferritin), marked polymorphonuclear leukocytosis, thrombocytosis and anaemia. Broad differential diagnosis recognized sJIA. In the treatment first non-steroidal anti-inflammatory drugs were used; then glucocorticoids first in monotherapy and next in combination with methotrexate. High disease activity persist regardless of the therapy. In the sixth month the inhibitor of IL - 6 receptor (tocilizumab) was introduced with good clinical response. The patient is in long-term follow-up in clinical remission on treatment.
CONCLUSIONS: sJIA requires wide differential diagnosis. It needs long-term combined therapy. In presented patient tocilizumab appears to be effective in treatment of sJIA .

Evaluation of the influence The Mirror Box Therapy on improving functions of the hand in a patient after stroke.

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IMOTIVATION: The cause of interest in the subject was evaluation of the influence The Mirror Box Therapy on improving functions of the hand in a patient after stroke.
DESCRIPTION: In The Mirror Box Therapy patient places dysfunctional hand in the mirror box and well-functioning hand in front of the mirror. By looking at the hand in the mirror patient receives a visual feedback. The brain receives a reflection in the mirror as a well-functioning hand. This method improves neuroplastic changes within the brain and allows to achieve a permanent improvement of the functioning of the hand.
In the research participated one patient: a 67 years old man after stroke of the right hemisphere of the brain. The patient had problems with functionality of his left hand. Before research began hand function tests have been done to check the progress of therapy. Tests included the Ashworth scale, DASH questionnaire and a test of seven basic grips. Whole therapy lasted two weeks and consisted of ten thirty-minutes meetings. On meetings the patient practiced with his hand activities of daily living, grips and exercises improving functionality of the hand. After the last meeting hand function tests were repeated.
CONCLUSIONS: After two weeks of The Mirror Box Therapy the patient achieved a significant improvement. Excessive muscle tension decreased and quality of the grips have improved. The patient had also less problems with daily routines like grasping objects, wearing clothes, washing himself or preparing meals. The patient was very satisfied with the therapy and believed that this method helped him to achieve a visible improvement.

The empty scrotum in 2-month old boy.

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IMOTIVATION: The prevalence of bilateral cryptorchidism is estimated to 0,18-0,4% of newborns with normal birth weight. The specific situation is an empty scrotum, when physical examination and USG fail to determine the presence of testis in a other positions. This condition requires further investigation to exclude sex differentiation disorders.
DESCRIPTION: A 2-month old boy was admitted to the Department of Urology, because of a lack of testis in the scrotum. In physical examination he presented also hypospadias. USG showed lack of testes in inguinal canals, pelvis and abdominal cavity. Karyotype analysis revealed 46XY karyotype. Patient was referred to paediatric endocrinologist. LH and FSH levels were prepubertal. The steroid profile did not confirm the enzymatic disorders of adrenal- gonadal steroidogenesis. The hCG stimulation test was performed (basal testosterone level <0,1 ng/ml and 72h post hCG - 3,99 ng/ml). Due to the result of the test, which indicated the presence of testes, the patient was referred to a diagnostic laparoscopy. Laparoscopy showed horned uterus with fallopian tube, dysgenetic gonad and total absence of the vas deferens on the left side. On the right side there was vas deferens and large testicle entering the right inguinal canal. Right orchiopexy was performed with biopsy for histopathological examination, which revealed atrophic seminiferous tubules and hypoplasia of Leydig cells. On a basis of clinical picture, the most probable diagnosis is mixed gonadal dysgenesis.
CONCLUSIONS: In the absence of visibility of the testis, the next step is to determine the karyotype to exclude the fifth degree of the Prader scale in genetic girls with congenital adrenal hyperplasia. In the case of the male karyotype 46 XY, normal serum testosterone and LH level allows to exclude complete androgen insensitivity syndrome (CAIS). Laparoscopy with histopathological examination is necessary to differentiate between forms of gonadal dysgenesis (total, partial and mixed) and decide on gonadectomy . Genetic tests are of little importance in determining the etiology of these disorders and indications for treatment.

14-year-old boy having Pemphigus foliaceus mistakenly diagnosed with Darier's disease - case report.

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IMOTIVATION: We present this case because of rarely occurence of Pemphigus foliaceus, diagnostic difficulties (lack of blisters in clinical picture) and terapheutic problems.
In articles there are reported some cases of occurence of this disease in small children, as well as in adolescents.
DESCRIPTION: We present 14-year-old boy's case, who had lesions of seborrhoeic scabs nature located on anterior and posterior thoracic surface and erythematous and desquamative lesions within axillary and popliteal fossae. The lesions were associated with moderate skin itching. Histopathological test showed at first Darier's disease features. 3-months treatement with Neotigasonem (10mg/d) was included, but without any improvement. At this time, the boy was admitted to Department of Dermatology and Venereology Outpatient Clinic of the Medical University of ŁDĂłdŁş, where histopathological test was done again and the immunologic tests were carried out. In the skin sample the acantolysis and intracutaneous blister were observed, DIF test showed IgG immunoglobulins deposits in intercellular spaces of stratum spinosum, and IIF test - soluble immunoglobulins type pemphigus at titre 1:640. Based on the clinical manifestations and additional tests results, the juvenile pemphigus foliaceus was identified. The treatement with prednizon p.o. 60mg/d was included, and after 3 months (reducing a dose to 40 mg/d) the average improvement was seen. Because of lack of oportunity to finance the treatement with intravenous immunoglobulin infusions or rituximab, cyclofosfamid 50 mg/d was added. Lesions started to improve gradually.
CONCLUSIONS: Pemphigus foliaceus is a dermatosis rarely seen among children. Clinically, the disease is characterized by flaccid blisters on erythematous background and numerous erosions located on the skin. Mucous membranes are lesions-free.
Every lesion with non-characteristic picture and when there is no response to the treatement, it is advisable to complement the diagnostic with immunologic tests.

Coexistence of different types of vascular anomalies in the same patient: Case series report.

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IMOTIVATION: Vascular anomalies are relatively common developmental disorders. Current classification according to ISSVA* distinguish two main types: Vascular tumors and Vascular malformations. This classification is based on differences in histological structure, proliferative activity and clinical behavior. Proper diagnosis of individual vascular anomaly is essential for prognosis, morbidity and different management. In some patients a coexistence of vascular tumors and vascular malformations was found that cause right diagnosis even more difficult.
DESCRIPTION: The aim of the study is to present selected clinical cases with coexistence of different vascular anomalies.
Patient 1. 12-year-old girl with extensive venous malformation of the left arm with bone marrow cavity involvement and capillary-lymphatic malformation of the front left thigh. Doppler ultrasound, MRI and phlebography was performed to confirm diagnosis. Sclerotherapy for the venous malformation with 2% Aethoxysklerol foam with improvement was performed and pulse dye laser therapy (PDL) for capillary malformation is being continued.
Patient 2. 11-year-old boy with cutaneus capillary malformation (CM) of the left lower extremity with deformation and recurrent pain of the knee. US discovered microcystic lymphoadipose malformation resistant to sclerotherapy. MRI and surgery was planned for this patient.
Patient 3. 7-month-old baby girl with 35x40mm red, superficial infantile hemangioma (IH) on abdomen, and subcutaneous hemangioma on the back presenting as soft tissue tumor. Doppler US confirmed diagnosis. She was started on oral propranolol (2mg/kg/day). After 2 months of therapy spectacular regression was observed especially of subcutaneous IH.
Patient 4. 4-month-old baby girl with capillary malformation on the forehead and superficial, red, bumpy infantile hemangioma on the right parietal area with rapid proliferation. She was started on 3% propranolol ointment for hemangioma and pulse dye laser for CM was suggested at the age of 1 year.

CONCLUSIONS: 1 Vascular tumors and Vascular malformations can coexist in the same patient.
2 Treatment should be individual and adequate to patient's clinical status
3 Proper diagnosis and treatment of vascular anomalies is based on ISSVA classification

*ISSVA - International Society for the Study of Vascular Anomalies

This book originates form Juvenes Pro Medicina 2014 abstract submission system. Juvenes Pro Medicina 2014 was 52nd Polish and 10th International Annual Training & Scientific Medical Congress of Students' Scientific Society and Junior Doctors held between the 8th and the 10th of May 2014 in Lodz. The event was organized by Students' Scientific Society at the Medical University of Lodz (supervisor: prof. Ewa Sewerynek, chairman: Konrad Stawiski). Should you have any questions please visit www.stn.umed.pl or contact us via stn@stud.umed.lodz.pl.