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*Experimental Studies***Synergistic effects of hyperbaric oxygen and granulocyte-colony stimulating factor on postoperative adhesion formation in a rat cecal abrasion model**

Can Kece, Fahrettin Yildiz, Abdurrahman Simsek, M Tahir Ozer, Salih Deveci, Taner Ozgurtas, Serdar Sadir, Ahmet Korkmaz, Ozgur Korkmaz, Nail Ersoz, Turgut Tufan 115

The authors investigated the synergistic effect of hyperbaric oxygen (HBO) and granulocyte-colony stimulating factor (G-CSF) on adhesion formation in rats. HBO treatment could not reduce the adhesion formation alone. Combined use of HBO and G-CSF, has a markedly preventive effect on postoperative adhesion formation.

Chronophysiologic aspects of ECG changes during a systemic asphyxial episode and subsequent reoxygenation in an experimental rat model

Bacova I, Svorc P Jr, Bracokova I 121

The aim of the study was to evaluate the effect of ventilatory manoeuvres on some ECG parameters as a function of the light-dark (LD) cycle in *in vivo* conditions. Reoxygenation did not act pro-arrhythmogenicly and the followed parameters were recovered to the pre-asphyxial level.

Effects of the general anaesthetic agent, propofol, on erythrocyte deformability

Mustafa Arslan, Faruk Metin Comu, Berrin Isik, Yusuf Unal, Nedim Cekmen, Omer Kurtipek 126

Propofol is an anesthetic agent frequently used for sedation and general anesthesia. The purpose of our study was to investigate the effect of propofol, a general anesthetic, on erythrocyte deformability in rats. A negative change in the erythrocyte deformability may cause a functional deterioration in blood flow and tissue perfusion.

The short term effects of infected gallstones lost intraperitoneally

Murat Ersen Bekar, Ali Erkan Ucar, Samet Yalcin, Bulent Yalcin, Ali Celik, Ahmet Kusdemir 129

During laparoscopic cholecystectomy, two intraoperative complications are more common than in conventional technique: The first and more important one is a possible damage to the bile duct and the latter is a rupture of gallbladder during dissection and contamination of abdominal cavity with its content. Despite these measures, sometimes stones may be retained in abdominal cavity. It is not so clear what these retained stones might cause in long term.

*Surveillance***Diabetes type 2 pandemic in 21st century**

Ginter E, Simko V 134

In the second half of the 20th century it became obvious that a relentless increase in diabetes type 2 (DM) affecting the economically affluent countries, is gradually afflicting also the developing world. This review juxtaposes the threat that the DM epidemic represents to mankind, with the astonishing recent discoveries on the role of obesity and of the body fat in this metabolic disorder.

*Topical Review***Does cell therapy and tissue engineering represent a promising treatment of diabetic foot ulcers?**

Ulicna M, Danisovic L, Vojtassak J 138

The authors demonstrate the severity and complexity of diabetic foot ulcers. The article overviews the present and possible

future modes of application of new materials and cells in the treatment of diabetes foot ulcers.

*Clinical Studies***Frequency-domain analysis of the signal-averaged electrocardiogram in hematological malignancies survivors**

Urbanova D, Urban L, Mikuskova E, Klincova M, Mladosevicova B 144

Cytostatic therapy-induced myocardial fibrosis can alter the frequency spectrum of the QRS complex in SAECG. We are presenting the frequency-domain signal-averaged ECGs abnormalities in childhood and adolescence acute leukemia and lymphoma survivors treated with or without anthracyclines-containing chemotherapy in comparison to healthy volunteers.

Relationship of five type 2 diabetes candidate gene polymorphisms to the age at diagnosis of diabetes in the Slovakian population

Kozarova M, Javorsky M, Stancakova A, Dobrikova M, Habalova V, Klimcakova L, Zidzik J, Haluskova J, Salagovic J, Tkac I 150

The present study examined possible relationship between polymorphisms of five genes and the age at diagnosis of type 2 diabetes in 538 Slovakian patients. No significant association between PPAR γ , PGC1, IRS1, KCNJ11 and TCF7L2 polymorphisms and a lower mean age at diagnosis was observed.

Our experience with examination of antibodies against antigens of *Borrelia burgdorferi* in patients with suspected Lyme disease

Durovska J, Bazovska S, Ondrisova M, Pancak J 153

Lyme borreliosis is a multisystemic disease which affects several organs such as skin, nervous system, joints and the heart. The presented study focused on patients with persisting symptoms of the disease, which could be in correlation with Lyme disease but antiborrelial antibodies were not confirmed by screening tests.

Clinical, neurophysiologic, neuropsychological findings and short genetic analysis in patients with idiopathic Parkinson's disease

Arben Taravari, Pavel Traubner, Stefan Gortha, Igor Petrov, Vera Petrova, Merita Ismajli-Marku 156

The interviewees were 15 patients with idiopathic Parkinson's disease, with a mean age of 50.13 years, ten of whom were men and five were woman. Clinical, neurophysiologic, neuropsychologic and neuroimaging methods of investigations showed changes that are nonspecific in proportions corresponding to those in available literature.

Timing of primary lip repair in cleft patients according to surgical treatment protocol

Ziak P, Fedeles J Jr, Fekiacova D, Hulin I Jr, Fedeles J 160

Results of meeting the primary lip repair timing in compliance with the surgical treatment protocol at Cleft Center, Bratislava. Report on reasons why the scheduled initial lip repairs were delayed. Retrospective analysis of 45 initial lip repairs among all cleft operations in a period of 3 years (2006—2008) was done. The object of the analysis was the "day of surgery after birth".

What can we do to promote the recognition of celiac disease: a report on diagnostic strategies

Makovicky P 163

In diagnosed patients, and especially in paediatric practice, it the values of autoantibodies regarding the adherence to a glu-

ten-free diet should be monitored. After reaching the adulthood, patients should be entrusted to the care of gastroenterologists. Biopsy of duodenum samples remains the golden standard for the diagnosis of celiac disease. Every histological examination of a duodenum sample must be completed by histological grading in accordance to Marsh-Oberhuber.

Case Report

Thromboembolic disease and testicular germ cell tumors
Miskovska V, Ondrus D 166

Testicular germ cell tumors occur rarely, but they are the most common solid tumors among young men. The combination of chemotherapy (bleomycin, etoposid, cisplatina) with surgery remains the mainstay of the treatment. The increased risk of thromboembolic events are well known in patients with cancer. This case report describes a 49-year-old man with pulmonary embolism diagnosed ten weeks after the beginning of chemotherapy.

Educational Methodologies

The WEB 2.0 induced paradigm shift in the e-learning and the role of crowdsourcing in dental education
Thurzo A, Stanko P, Urbanova W, Lysy J, Suchancova B, Makovnik M, Javorka V 168

The study of the effects of WEB 2.0 environment on the dental education proved a better retention of knowledge of orthodontic cephalometric analysis acquired by the means of e-learning. Authors introduced the principles and potential of crowdsourcing based on medical students. Also the evolution of the students' attitudes to the type and number of study-resources has been evaluated. The results confirmed an increasing number of resources with a rising frequency of e-learning materials.