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*Experimental Studies***Warm liver ischemia in experiment and lysosomal markers**

Vician M, Olejnik J, Michalka P, Jakubovsky J, Brychta I, Gergel M ..... 587

In experimental model of warm liver ischemia the authors studied lysosomal system enzymes (acid phosphatase, lactate dehydrogenase). The control group specimens were compared to experiment groups protected by an antioxidant pyridoinol (Stobadin) and a methylxanthine-theobromin derivate (Pentoxiphylline). Evaluating the histomorphological changes of the liver parenchyma, the protective effect of such substances has been confirmed.

**Arginase in the airways hyperreactivity**

Strapkova A, Antosova M ..... 592

Authors studied the effect of intervention in arginase activity in animal model of experimental allergen-induced airway hyperreactivity. They used arginase and inhibitor of arginase (NOHA) as well as precursor of NO synthesis L-arginine. Results establish that arginase may be one of important factors controlling the bronchomotoric tonus and airway reactivity changes.

*Clinical Studies***Fecal calprotectin as a promising marker of inflammatory diseases**

Paduchova Z, Durackova Z ..... 598

The aim of this study is to summarize latest information on calprotectin – calcium-binding protein with antimicrobial and antiproliferative properties, which is used in several countries as a marker of IBD activity, and response to treatment and detect disease relapses, and to show our preliminary results in IBD children.

**Pulmonary arterial hypertension – contemporary management strategy**

Jansa P, Ambroz D, Maresova J, Polacek P, Aschermann M, Linhart A ..... 603

The treatment of PAH should not only be symptomatic, but also directed towards the improvement in patient's survival and quality of life. There are great advances made in the last years. Currently the therapeutic strategies are based on understanding the pathogenesis of PAH and are acting through various pathogenic pathways, therefore there is a real potential to improve the patient's clinical course.

**Cochlear implantation in malformed inner ear**

Kabatova Z, Profant M, Simkova L, Groma M, Nechojdomova D ..... 609

Authors deal with preoperative evaluation of the deaf children with malformed inner ear. Different types of inner ear malformations, specific surgical procedures are described. Results are evaluated according to international standards (hearing results, quality of speech production). The results of CI in inner ear malformation are inferior to standard results.

*Perspectives***New approach to probability estimate of femoral neck fracture by fall (Slovak regression model)**

Wendlova J ..... 614

The Slovak regression model differs from regression models, published until now, in chosen independent variables and a dependent variable, belonging to biomechanical variables.

*Clinical Studies***Surgical treatment of pulmonary metastases in germ-cell testicular cancer patients – long-term results**

Schnorrer M, Ondrus D, Vichova B, Oravsky M, Bak V ..... 620

Authors presents 63 patients who were surgically treated in the period from 1988 to 2008 for pulmonary metastases in germ cell testicular cancer. All patients were allocated for surgical treatment after undergoing cisplatin-based combination chemotherapy.

**Procalcitonin, neopterin and C-reactive protein in diagnostics of intrauterine infection and preterm delivery**

Greksova K, Parrak V, Chovancova D, Stencil P, Oravec J, Marsik L, Sysak R, Fuchs D, Peskova Z, Borovsky M ..... 623

The authors evaluated 155 patients from 26. to 41. week of pregnancy at the time of delivery. We measured serum concentrations of procalcitonin (PCT), neopterin and C-reactive protein (CRP) from mother's blood sample at the beginning of delivery and from umbilical cord blood after delivery. The individuals were divided into 2 groups.

**Increase in the circulating level of hepatocyte growth factor in pancreatic cancer patients**

Ozgun Kemik, Sevim Purisa, Ahu Sarbay Kemik, Sefa Tuzun ..... 627

Hepatocyte growth factor (HGF) has been reported the cause of many biological events, including cell proliferation, invasiveness, morphogenesis, and angiogenesis. Elevated HGF content in tumor tissue was reported to predict a more aggressive biology in breast and gastric cancer patients. However, there is still limited knowledge about the role of HGF in pancreatic cancer. This study was designed with the aim to elucidate the possible relationship between the circulating soluble HGF and pancreatic cancer.

**Systemic malignancies presenting as primary osteolytic lesion**

Sirelkhatim A, Kaiserova E, Kolenova A, Puskacova J, Suvova Z, Petrzalkova D, Banikova K, Suvada J, Sejnova D ..... 630

The tumor formation may be the earliest manifestation preceding other symptoms, signs and bone marrow evidence of systemic malignancy – leukemia/lymphoma. Here we present three cases of systemic malignancy in which bone lesions were the first manifested signs of the disease. All three cases were thought to be orthopedic cases and had been treated as so without genuing improvement.

**Monosodium glutamate induces apoptosis in naive and memory human B cells**

Jovic Z, Veselinovic M, Vasic K, Stankovic-Djordjevic D, Cekic S, Milovanovic M, Sarac M ..... 636

In this study we have demonstrated that upon in vitro exposure to MSG human naive and memory B cells undergo cell death via an apoptotic mechanism.

**Serum and synovial fluid concentrations of CCL2 (MCP-1) chemokine in patients suffering rheumatoid arthritis and osteoarthritis reflect disease activity**

Stankovic A, Slavic V, Stamenkovic B, Kamenov B, Bojanovic M, Mitrovic DR ..... 641

The synovial fluid (SF) and serum CCL2/MCP-1 chemokine concentrations are significantly greater in rheumatoid arthritis

than in osteoarthritis. Increased CCL2/MCP-1 in synovial fluid over serum concentrations suggest that CCL2/MCP-1 is mainly produced locally by activated cells where it may exacerbate and sustain inflammation by attracting proinflammatory leukocytes, predominantly monocytes.

**Renal biopsy in children with steroid-dependent nephrotic syndrome**

Skalova S, Podhola M, Geier P, Tichy T ..... 647  
Renal biopsy prior to cyclophosphamide therapy is not necessary in patients with steroid-dependent nephrotic syndrome. The duration of remission is inversely correlated to relapse rate after the cyclophosphamide treatment

**Prognostic value of anti-cyclic citrullinated peptide antibodies and rheumatoid factor in patients with rheumatoid arthritis**

Omer Kuru, Ayhan Bilgici, Asuman Birinci, Hasan Ulusoy, Belma Durupinar ..... 650  
Since modern treatment of RA is shifting toward aggressive antirheumatic therapy in an early phase of the disease, prognostic tests with high specificity are desirable. Our results suggest that the combined use of RF and anti-CCP has greater predictive value for erosive RA than anti-CCP or RF alone, and may facilitate to make a decision about the individual treatment in RA.

*Prospective Study*

**Screening for depression in survivors of metastatic ovarian cancer in a programme of palliative cancer care**

Slovacek L, Slanska I, Slovackova B, Petera J, Filip S, Priester P, Kopecky J, Jebavy L ..... 655  
Depression is seen in many cancer patients. It occurs in approximately 25 % of palliative care patients. It is widely recognised

by clinicians that depression is a difficult symptom to identify amongst patients with advanced illness. Aim. The study is aimed for screening for depression in survivors of metastatic ovarian cancer in a programme of palliative cancer care.

*Reviews*

**The physiological conception of thinking based on the results of psychostereotactic operations**

Nadvornik P, Bernadic M ..... 660  
The elemental thinking of the hypothalamus resides in relatively simple memory that contains standard values of the internal environment of the body. Should any of them be disturbed, the basic operator of thinking evaluates the particular disorder, and another operator gives an order to its elimination. The order is carried out by subordinate structures of the brain.

**Statins: The Drugs for the 21st Century?**

Ginter E, Simko V ..... 664  
This review summarizes the current evidence on beneficial effect of statins on the atherogenesis and the preventive potential of coenzyme Q 10 to avoid statin-induced myopathy.

**The use of platelet rich plasma with guided tissue regeneration in defects caused by periodontal diseases**

Holly D, Mracna J ..... 669  
The goal of periodontal treatment is not only the stabilization of disease but also the regeneration of the destructed tissue. In the past few years various procedures have been created to achieve this. The guided tissue regeneration is a surgical procedure developed on the basis of experimental studies. It enables the creation of periodontal tissues affected by periodontitis, the so called reattachment.