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*Current Perspectives***Mitochondria and mitochondrial nitric oxide synthase alterations participate in energetical dysbalance, aging and age-related diseases**

Dzurik R, Krivosikova Z, Stefikova K, Spustova V 405
Mitochondria possess nitric oxide synthase (mtNOS) synthesizing nitric oxide (NO), inhibiting oxidative phosphorylation and protecting mitochondria from oxygen radicals. MtNOS is stimulated by Ca transported into mitochondria by an electrogenic uniporter and removed from mitochondria by a Na⁺/Ca²⁺ exchanger. Low mtNOS activity participates in aging, age-related and other mitochondrial diseases. Only indirect diagnostic methods such as insulin resistance are accessible but nonspecific measures of NO balance in clinical diagnostics and preference of drugs improving NO production is to be recommended.

*Frontiers***Avian influenza – a new challenge**

Laranjeira CA 412
The recent epidemics caused by the avian influenza A virus in Asia, have demonstrated the capacity of this agent to cause serious illness in humans. In most cases, infection has been associated with direct exposure to infected birds or contact with surfaces infected with bird excrement. However, cases of human-to-human transmission have been confirmed. Controlling outbreaks in domestic fowl and limiting contact between humans and infected birds must be the priorities in the management of this disease at the public health level.

*Experimental Study***Systematic isolation and characterization of cDNAs encoding AAA proteins from human brain**

Xinping Zhao, Hedera P, Fink JK 418
The AAA domain characterizes a diverse superfamily of proteins. Mutations in genes encoding AAA-domains cause a variety of human diseases including cystic fibrosis, Zellweger syndrome, adrenomyeloneuropathy, and dystonia. Recently, mutations in two AAA-containing proteins paraplegin and spastin have been shown to cause two types of hereditary spastic paraplegia (HSP). The HSPs are genetically heterogeneous degenerative spinal cord disorders characterized by lower extremity weakness and spasticity.

*Clinical Studies***Correlation between the aPTT and clinical events in acute coronary syndromes treated with unfractionated heparin**

Mitrovská S, Jovanova S 422
Unfractionated heparin (UFH) is considered as a standard therapy in the management of unstable coronary artery disease. His efficacy is concerned to low rate of adverse events, but it shows lack of correlation between aPTT and clinical outcomes.

Valsalva leak point pressure predicts outcome after transobturator suburethral tape implantation – fact or fiction?

Romancik M, Lutter I, Goncalves F, Pechan J, Obsitnik M, Weibl P, Havalda A 426
The effect of Valsalva leak point pressure (VLPP) on outcome of stress urinary incontinence treated by transobturator suburethral tape (TOT) implantation has not been systematically assessed in previous studies. Therefore, we have investigated this correlation and found VLPP value as an important predictor of outcome using TOT implantation.

Long-term results of surgical treatment of patients suffering from cerebral palsy

Kokavec M 430
Author review long-term experience with surgical treatment of children suffering from cerebral palsy (CP). The operations performed in the past at one level were replaced by modern „multi-level approach“ in case of need. The age at the time of surgery is

recently much lower, comparing to the past. The changes and improvements of surgical techniques and approach to the children with CP enabled to increase the number of children having benefit of such treatment.

Is interhemispheric arachnoid cyst with corpus callosum agenesis related to cavum Vergae cyst?

Novak Z, Chrastina J, Nadvornik P 435
Authors operated on successfully giant interhemispheric arachnoid cyst associated with corpus callosum agenesis. The cyst was in fact expansive cavum Vergae cyst, taking into consideration the developmental mechanism responsible for the formation of third ventricle dorsal cysts.

*Case Reports***Retropharyngeal lymphangioma**

Jakubikova J 439
Retropharyngeal lymphangioma is exceedingly rare and has been reported in only one case report in English literature. We are presenting a case of a 21 month-old girl with a history of acute tonsillitis and acute inspiratory stridor due to retropharyngeal bulging.

Maggot debridement therapy

Cambal M, Labas P, Kozanek M, Takac P, Krumpalova Z 442
From August 2003 to December 2005 the authors treated with Maggot debridement therapy (MDT) 10 patients, 6 men and 4 women, with 13 leg ulcers treated first with conventional and then with maggot therapy. Average age of these patients was 55 years, 11 wounds were of venous and 2 of arterial origin. 7 patients had diabetes mellitus. Maggot therapy was more effective and efficient in debriding non-healing leg ulcers than a conservative treatment.

Giant solid abdominal mass with cystic lesions: a case report and diaphorodiagnostic approach

Iavazzo C, Myriokefalitaki E, Vorgias G, Akrivos T, Lekka I, Katsoulis M 445
A perimenopausal women presented with abdominal distention, pelvic discomfort and problems of constipation for the last 4 months. All clinical and radiological examinations were in favor of a giant solid mass with cystic lesions arising from the left ovary.

*Review***Coagulase negative staphylococci and their participation in pathogenesis of human infections**

Longauerova A 448
Coagulase negative staphylococci are among the bacteria routinely isolated at various clinical microbiology departments. There are presently 41 recognized taxons, designated coagulase negative staphylococci. From the aspect of their pathogenic potential, the most important property of coagulase negative staphylococci is their capability to form biofilm on the surfaces of foreign bodies introduced (implanted) into the organism.

*Statistics***Which statistical tests for estimating osteoporotic fracture risk?**

Wendlova J 453
The author presents an analysis of statistical methods used for estimating fracture risk in patients with osteoporosis. The incorrect option of statistical analysis, the incorrect interpretation of risk ratio or odds ratio and overestimation of the importance of a risk factor may lead to unintentional errors in the economic analysis of potential programs or treatments in osteoporosis.

*Debate and Discussion***University Publication Database**

Peknikova M 459
The article briefly describes the information needs of higher education institutions, specifically the needs for data on publication activities.