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Experimental Studies

Effects of atorvastatin on heart mitochondrial function and coenzyme Q content in the experiment

Kucharska J, Ulicna O, Gvozdjakova A, Vancova O, Waczulikova I, Bozek P, Bada V 603

We focused on determination of whether atorvastatin: 1) reduces CoQ content, 2) impairs mitochondrial function and 3) induces dose-dependent changes. Although the high dose of atorvastatin exerted a beneficial effect on the lipid peroxidation in plasma, coenzyme Q content was reduced and heart mitochondrial function was impaired. Physicians should be aware when prescribing statins mainly in higher doses to the patients with co-existing proved or supposed CoQ10 deficiency resulting from age-related decline, and metabolic or mitochondrial diseases.

Evaluation of erythrocyte deformability in experimentally induced osteoporosis in female rats and the effects of vitamin C supplementation on erythrocyte deformability

Arslan A, Aydin G, Keles I, Comu FM, Arslan M 605

The aim of this study was to evaluate the possible variations in antioxidant enzymes, lipid peroxidation and erythrocyte deformability in experimentally induced osteoporosis in female rats and to assess the effects of vitamin C supplementation on those variations. Erythrocyte deformability may show negative variations, suggesting a causative role in disruption of blood flow and tissue perfusion, which also negatively affect bone metabolism. Vitamin C supplementation seems to reverse those negative effects of variations in erythrocyte deformability.

Clinical Studies

Selected biomarkers of age-related diseases in older subjects with different nutrition

Krajcovicova-Kudlackova M, Babinska K, Blazicek P, Valachovicova M, Spustova V, Mislanova C, Paukova V ... 610

Markers of age-related diseases (cardiovascular, metabolic syndrome, diabetes) were assessed in vegetarian and non-vegetarian women aged 60-70 years. Vegetarian values of total cholesterol, LDL-cholesterol, triacylglycerols, C-reactive protein and insulin resistance are significantly reduced. Vegetarians have a better antioxidative status (significantly increased vitamin C, lipid-standardized vitamin E and β-carotene plasma concentrations). Lower lipid and non-lipid markers of age-related diseases (besides the mild hyperhomocysteinemia) document a protective effect of vegetarian nutrition.

ECG signs of right ventricular hypertrophy may help distinguish pulmonary arterial hypertension and pulmonary hypertension due to left ventricular diastolic dysfunction

Goncalvesova E, Luknar M, Lesny P 614

Distinguishing pulmonary arterial hypertension (PAH) and pulmonary hypertension due to left ventricular diastolic dysfunction (PHLDD) is essential for the correct disease management. We compared the importance of electrocardiographic (ECG) signs of right ventricular hypertrophy (RVH) in patients with similar degree PAH and PHLDD. In patients with pulmonary hypertension detected using echocardiography, ECG presence of RVH/overload may exclude LV diastolic dysfunction as a cause of PH and suggests the diagnosis of PAH.

Natural behaviour and surgical treatment of appendiceal carcinoids: an analysis of 2,376 consecutive emergency appendectomies

Ozer MT, Demirbas S, Celik E, Safali M, Harlak A, Coskun K, Ersoz N, Uzar AI 619

Carcinoid tumor of appendix is a rare condition. Its rarity may give rise to variances in its management. We aimed to demonstrate the occurrence and form of presentation of carcinoid tumor of appendix, as well as variations in its treatment. Carcinoid tumour of the appendix remains an incidental diagnosis. Patients with carcinoid were significantly younger than those with non-carcinoid conditions in the study. Re-operation rate was low. The interval to definitive surgery was very short and only one patient was followed up.

Simultaneous occurrence of synchronous and metachronous tumors with gastrointestinal stromal tumors

Adim SB, Filiz G, Kanat O, Yerci O 623

Although GISTs are uncommon neoplasms, their synchronous and metachronous coexistence with other tumors is rather frequent, mostly as incidental tumors accompanying a gastrointestinal neoplasm. Therefore, during surgery on cases with gastrointestinal neoplasms, the surgeon needs to be careful about a synchronous GIST. At the same time, more detailed studies are needed about the carcinogenesis of dual tumors coexisting with GISTs.

Alkaline phosphatase: can it be considered as an indicator of liver fibrosis in non-alcoholic steatohepatitis with type 2 diabetes?

Kocabay G, Telci A, Tutuncu Y, Tiriyaki B, Ozel S, Cevikbas U, Okten A, Satman I 626

While isolated hepatosteatosis is a benign disease, in minority of cases non-alcoholic steatohepatitis (NASH) may even lead to cirrhosis in long-term. In order to find the stage of the disease and determine the prognosis, a liver biopsy is indicated. In this study, we studied the relationship of liver histopathological findings with serum levels of hepatic enzymes. In addition to conventional risk factors such as age, presence of diabetes, female sex; higher levels of ALP may be considered as a risk factor linked to hepatic fibrosis in patients with NASH and type 2 diabetes.

Malignant tumours of colon and rectum from the blood clotting view

Mytnik M, Stasko J, Mistuna D, Seliga P 630

The authors this study analyzing protrombotic state in patients with colorectal malignant tumours. They investigated more measure of clotting potential. They analyze the risk of thrombosis by tumor type, clinical stage, age, by invasivity performance and adjuvant therapy. It notes that the risk of thrombosis is greater in the aggressive tumors (eg. mucinous cancer, non-different cancer), in advanced clinical stage (most often in 3rd-4th clinical stage) and in older patients (6th-7th decenium). It notes that the D dimer and PAI-1 is a reliable indicator of risk of protrombotic disposition.

The comparison of ultrasonographic placenta examination with pathohistologic verification of fetal anomalies

Loncar D 634

Ultrasound diagnostics is a sovereign diagnostic method of discovering disorders in growth and development of embryo.

The main aim of this research was The Comparison of Ultrasonographic Placenta Examination with Pathohistologic Treatment of Placenta considering those pregnancies, which were previously verified to have embryo anomalies, and which were ended by the procedure of feticide. During the period of 2005–2008, 15 pregnant women, with gestation between 24th and 28th week, were hospitalized in our clinic.

Diagnostics of psychophysiological states and motivation in elite athletes

Korobeynikov G, Mazmanian K, Korobeynikova L, Jagiello W 637

Concepts explored in our study concerned identification of various types of motivation and their connection to psychophysiological states in elite judo and Greco-Roman wrestlers. We tried to figure out how do these different types of motivation interact to describe psychophysiological state in qualified wrestlers. Conducted experiment revealed that combination of high levels of both motivation to achievement of success and motivation to avoid failure provides better psychophysiological state in elite wrestlers compared to other groups with different combinations of motivational variables.

Case Reports

Liver abscess in human toxocariasis

Treska V, Sutnar A, Mukensnabl P, Manakova T, Sedlacek D, Mirka H, Ferda J 644

Liver abscess formation in human toxocariasis is a very rare condition. Authors describe a case of a large liver abscess which has to be solved by right hepatectomy. The postoperative course was complicated by biliary fistula, which was successfully managed by temporary stent implantation. Six months after liver surgery, the patient is without any problems.

Neonatal teeth

Kovac J, Kovac D 648

In this article, a case report of two neonatal teeth in a five week old girl is presented. The teeth were present in the mandibular incisor region and were excessively mobile and caused discomfort for the nursing mother. They were extracted because of the fear of aspiration.

Classic congenital adrenal hyperplasia with virilisation and salt-wasting: from birth to the adult life

Iavazzo C, Myriokefalitaki E, Ntziora F, Bozemberg T, Baskozos I, Papargyriou T, Paschalopoulos D 651

We report the case of a 23-years-old female with the classic Congenital Adrenal Hyperplasia (CAH) from birth, diagnosed due to genital pigmentation, clitoromegaly and salt-wasting crisis, treated with glucocorticoid replacement (hydrocortisone, fludrocortisone and NaCl), followed by genital surgery, until the adult life when she continues treatment with fludrocortisone and prednisolone.

Penile paraffinoma and ulcers of penis

Bobik O Jr, Bobik O Sr 653

The authors describe a case of 33 year old Caucasian married man with an irregular 6 cm penile mass associated with multiple penile ulcers. He reluctantly admitted that 10 years ago he had multiple mineral oil (Vaseline) self injections into the penis, for penile enlargement purposes. The patient had a surgical intervention 10 years ago, but he has recurrent ulcers on his penis.

Review

Use of thrombocyte concentrates in treatment of bone defects

Feltsan T, Mracna J, Holly D 655

The use of plasma enriched with thrombocytes is a trend in surgical treatment of bone defects (Platelet-rich plasma, thrombocyte concentrate, hereinafter PRP). It contains a set of identified as well as unknown growth factors. It is nontoxic, has no immunity reaction, accelerates and improves the healing of wounds. The increased level of growth factors leads to improved formation of new bone matter, and at the same time speeds up healing of soft tissues surrounding the bones. In addition, the presence of various factors mutually modulates and influences their functions. These functions are specific and differentiate the growth factors from recombinant growth factors, which are simple and focus just on one regenerating operation.