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*Insight Review***Complex intracardiac nervous system**

- Kukanova B, Mravec B 45
 The concept of hierarchical organization of neuronal control of the heart changes progressively. Aside from autonomic nervous system, heart activity is regulated also by intracardiac neurons. Groups of neurons, forming intracardiac ganglia, process information from heart itself and from extracardiac neurons of autonomic nervous system. Rich interconnections between heart ganglia form complex intracardiac nervous system. This complex neuronal system participates in precise regulation of heart activity. Functions of this system and its involvement in etiopathogenesis of selected diseases are discussed.

*Experimental Study***Interaction between nitric oxide and prostanoids in the respiratory system**

- Strapkova A, Antosova M, Nosalova G 52
 It is possible to suppose participation of NOS – COX enzymatic systems and their interaction in airway hyperreactivity.

*Clinical Studies***Serum magnesium levels in patients with alcoholic and non-alcoholic fatty liver**

- Turecky L, Kupcova V, Szantova M, Uhlíkova E, Viktorinova A, Czirfusz A 58
 Determination of magnesium in sera of patients with alcoholic and non-alcoholic hepatic steatosis showed decreased levels of this electrolyte in both studied groups. Hypomagnesemia is not only a laboratory symptom of fatty liver but due to its connection with increased oxidative stress it might be a risk factor in the progression of fatty liver to steatohepatitis.

Vaginosacral colpopexy (VSC) – A new modification of the Mc Call operation using vaginosacral ligaments as autologous sliding grafts in posthysterectomy vault prolapse

- Antovska SV, Dimitrov DG 62
 A modification of the Mc Call operation, vaginosacral colpopexy (two sutures through both vaginosacral ligaments and posterior vaginal wall and the third suture through both uterosacral ligaments and circularly through the central third of the posterior vaginal margin) for vault prolapse is described in a series of 32 patients.

Association of HLA-DPB1 alleles with type I diabetes mellitus in Slovak population

- Stuchlikova M, Kantarova D, Michalkova D, Barak L, Buc M 73
 The HLA complex is estimated to contribute in over 50 % to the total genetic risk of type I diabetes mellitus (T1 DM). In addition to the confirmed associations of T1 DM to HLA-DRB1, -DQA1 and DQB1 alleles, respectively, HLA-DPB1 polymorphic gene is the further susceptibility candidate worth to be investigated. Our study establishes the occurrence rates of DPB1 alleles in 61 patients and compares them with those in 160 healthy subjects of the Slovak population. Our results confirm a significant decrease in the occurrence rate of DPB1*0402 allele.

HLA class II allele frequencies in type 1A diabetes mellitus Slovak patients

- Shawkatova I, Michalkova D, Barak L, Fazekasova H, Kuba D, Buc M 76
 Our results, consistent with other studies, show increased frequencies of known positively associated HLA class II alleles in our type 1A diabetes mellitus patients compared to the general (nondiabetic) population. The protective effect of previously reported alleles was confirmed as well. Results of our population-based study serve in clinical practice for the identification of subjects at risk of developing DM-1A among the first-degree relatives.

*Minireview***Bioavailability of chalcones**

- Hijova E 80
 Phenolic compounds are important compounds because of their contribution to human health and their multiple biological activities. Although these compounds are not a panacea for good health, some of their beneficial activities presented in this short review showed their importance and their possible usage in the prevention of various diseases.

*Clinical Study***„Different“ approach in the operative treatment of congenital clubfoot and its results**

- Kokavec M, Gajdos M, Kusin M, Novorolsky K 85
 Authors retrospectively analyzed a group of 273 operated clubfeet (145 patients) and the group of 60 operated clubfeet (33 patients), between 1993 and 2002 with follow up period from 2 to 11 years (average 72 months). Recurrences in both groups due to the insufficient first step operative reduction and mistakes in after treatment were 12 %. Satisfactory results were achieved in 88 % of cases in both groups.

*Case Reports***Surgery of the peripheral nerves**

- Matejčík V, Penzesova G 89
 The results of reconstruction operations of peripheral nerves injuries were dependent on the patient's age, the period between the injury and operation, the length of the autograft, the location of the injury, the type of injured nerve and the character of the injury.

Pedal bypass as urgent surgical revascularisation

- Kříž Z, Vlachovský R 93
 Pedal bypass grafting – as urgent intervention – is indicated in cases where an acute lower limb ischaemia is caused by the occlusion of the crural arteries intractable other way, or where injury of crural arteries is so extensive that the only chance of save the limb is a bypass of the whole part of the shank.

Cystic renal cell carcinoma

- Weibl P, Lutter I, Breza J, Pechan J, Blazko M, Gajdosova T, Pindak D 96
 The authors described the data from our study, tumor/cyst coexistence requires further surgical exploration in groups 2, 3, 4. Small cystic renal cell carcinomas up to 4 cm in diameter have usually favourable pathology and prognosis, which offers the minimally invasive nephron-sparing treatment options such as excision, ablation or partial nephrectomy.