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*Experimental Study***Histological effects of zinc and melatonin on rat testes**

Tuncer I, Sunar F, Toy H, Baltaci AK, Mogulkoc R 425
 The objective of this study is to examine the histological effects of zinc and melatonin, alone or in combination, on rat testes. The obtained results suggest that 4-week treatment with melatonin leads to histological and physiological impairments of testes and that zinc supplementation might offset these damaging effects.

*Reviews***Targeting angiogenesis for cancer (gene) therapy**

Gardlik R, Celec P, Bernadic M 428
 Angiogenesis research has emerged as one of the most comprehensive research areas in biomedicine, and development of novel drugs by targeting angiogenesis has become one of the main focuses among pharmaceutical companies. Suppression of development of new blood vessels in solid tumors provides a clear therapeutic benefit both in experimental animals and human patients.

Clinical importance of matrix metalloproteinases

Krizkova S, Zitka O, Masarik M, Adam V, Stiborova M, Eckschlager T, Hubalek J, Kizek R 435
 This review gives a brief summary on clinical applications of MMPs and their determination. Primarily, the activity of MMPs in cancer formation, development and metastasis is discussed. Further, survey on methods for detection and determination of MMPs follows.

Pharmacogenetics of oral antidiabetic treatment

Schroner Z, Javorsky M, Kozarova M, Tkac I 441
 In the majority of patients with type 2 diabetes (T2D), oral antidiabetic drug (OAD) treatment is the first line treatment after lifestyle measures fail. Two major groups of OAD are used in clinical practice – insulin secretagogues and insulin sensitizers. Identification of drug-genotype interactions in pharmacogenetic studies of the OAD treatment might have clinical implications in the near future resulting in selection of more specific “patient-tailored therapy” in T2D.

*Clinical Studies***Short term oxidative DNA damage by hyperbaric oxygenation in patients with chronic leg ulcers**

Zimanova J, Batora I, Dusinska M, Burghardtova K, Blazicek P, Vojtech I, Bizik A 447
 Hyperbaric oxygen therapy (HBO) is successfully used for the treatment of a variety of conditions and diseases. HBO therapy can be valuable for treating selected cases of hypoxic diabetic leg ulcers and chronic venous insufficiency. Exposure to high concentration of oxygen is known to induce damage to cells, possibly due to an increased oxygen radical production. Reactive oxygen species also cause DNA damage. Results of DNA damage evaluation at different time periods suggest there are no significant changes if compared to initial DNA damage values. HBO treatment can be used as adjuvant treatment because no significant risk is manifested with this therapy.

Is carotid endarterectomy under the cervical plexus block safe for all patients with various degree of cardiovascular risk?

Mannova JH, Silhart Z, Prokes A, Cupera J 453
 The result of the GALA study did not answer the question whether it is safe to perform carotid endarterectomy (CEA) under the

cervical plexus block (CPB) in patients at high cardiovascular (CV) risk. The aim of the study was to compare CV stability and the frequency of cardiovascular and neurological complications in 3 groups of patients with various degree of CV risk who underwent CEA under CPB. CPB can be performed in all three groups of patients, even in high-risk cardiac patients. The results will have to be confirmed in a larger group of patients in future.

Caesarean section in isobaric spinal anesthesia with and without direct preoperative hydration with crystalloids

Damevski V, Damevska G, Krivasija M, Nojkov O, Sivevski A 459
 Because the direct preoperative hydration with crystalloids (20 ml/kg) does not adequately prevent spinal hypotension during cesarean section, the authors investigated whether a continuous intravenous infusion of ephedrine (50 mg/500 ml of Ringer solution) without preoperative hydration would prevent the spinal hypotension more effectively. The continuous infusion of ephedrine simultaneously with spinal anesthesia is superior to direct preoperative hydration with crystalloids in preventing the spinal hypotension and its clinical manifestations in parturients delivered with C-section.

*Case Reports***Portomesenteric vein gas and pneumatosis intestinalis – a rare complication after neoadjuvant radiochemotherapy in oesophageal cancer**

Duchon R, Pindak D, Sucha R, Bernadic M, Dolnik J, Pechan J 463
 Portomesenteric vein gas and pneumatosis intestinalis is most commonly caused by mesenteric ischemia and bowel necrosis but may have a variety of other causes. The etiology is multifactorial and the clinical presentation is variable. The diagnosis is based on a combination of clinical suspicion and radiographic findings. The finding of hepatic portal venous gas alone is not an indication for emergent exploration. We report portomesenteric venous gas as a rare complication after neoadjuvant radiochemotherapy of the oesophageal cancer.

Orbital melanoma

Furdova A, Chynoransky M, Krajcova P 466
 Primary or secondary orbital melanomas are extremely rare tumors; they represent less than 1 % of primary orbital neoplasms. Over 90 % of primary orbital melanomas arise from melanocytes (congenital ocular melanosis, oculodermal melanosis). In the Department of Ophthalmology, Comenius University, Bratislava, in period 2001–2007, a total number of 79 patients with uveal melanoma (dg. C69) were treated with radical surgery, combined techniques or isolated stereotactic radiosurgery, 45 (57 %) patients with ciliary body and choroidal melanomas were treated with primary enucleation, 34 (43 %) patients were managed with combined techniques (parsplana vitrectomy with endoresection, brachytherapy plus stereotactic radiosurgery) or with "conservative treatment", namely with stereotactic radiosurgery alone. In group of melanoma patients, primary orbital melanoma was present only in 1 case (1 %).

A forgotten diagnosis in emergency department: tetanus

Akdur O, Ozkan S, Durukan P, Koyuncu M, Ikizceli I, Metan G 469
 Tetanus cases may present to ED with different symptoms. Therefore, physicians should be aware of the early signs of tetanus.

Careful and meticulous wound management of cases presented to ED following an injury should be considered a significant factor, which can help in reducing the tetanus cases.

Consequences of abdominal adenocarcinoma in post-menopausal woman in relation to surgical and non-surgical management

Moniruzzaman M, Faruquzzaman, Mohiuddin T 472

A 64-year-old, para 6+2, menopausal woman for twelve years presented with a lump at the umbilicus that was gradually enlarging for nine years. The lump was excised and histology showed there was an extensive invasion of the skin to the deep dermis by papillary adenocarcinoma with psammoma bodies.

Morphological Study

The topographical features and variations of nervus ischiadicus in human fetuses

Davut O, Yakup G, Sevgi B, Senoglu M, Kalender AM, Calik M 475

We aimed to investigate the topographical features and variations of ischiadic nerve during prenatal period in human. Understanding the structure and course of ischiadic nerve in both gluteal and femoral regions is important during all interventions to these regions due to the potential damage on the nerve itself. The knowledge of topographical features of ischiadic nerve in the prenatal period and its relations with reference points that are used especially in childhood and adults will help to follow up the variations during postnatal and grow up periods.