### Materials of Conferences

## NEW IN THE PATHOGENESIS OF THE ACUTE EPIDIDYMITIS

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The problem of diagnostics and treatment of an acute epididymitis demands separate treating as often the choice of a method of treatment has empirical character and depends only on personal preferences of the clinician. As a research problem the proof of existence of a phenomenon of an intrascrotal hypertension (ISH) was nominated at acute epididymitis at men. It is known that pressure rising in the closed cavity harmful influences the course of the main pathological process. Under observation there were 80 patients with acute the epididymitis. Middle age of  $28,3 \pm 3,6$  years. Existence of a serous form acute epididymitis, confirmed histologically was criterion of including in researches. At 34 (42,5%) patients the disease was accompanied by development reactive hydrocele among which at 21 (61,8%) the ISH was observed. The group of comparison consisted of 20 healthy men who don't have in the anamnesis of indicatings on transferred diseases of organs of a scrotum. Measurement of intrascrotal pressure was carried out by the technique offered by us. Research of a hemodynamic in a testicle and its appendage was carried out by means of an ultrasonic dopplerography. Average value of intrascrotal pressure made  $-14.4 \pm 2.4$  cm of water column. During research it is established that depending on existence / lack of an ISH at acute inflammatory processes in organs of a scrotum profiles of development of disorders of a hemodynamic essentially differing from each other take place. At acute epididymitis, not being accompanied ISH, the blood flow in a testicle and its appendage undergoes changes in a type of hyper vascularization and depression of vascular resistance (Ri in intratesticle centripetal arteries  $0,24 \pm 0,03$ , and in arteries of an epididymis  $0,37 \pm 0,01$ ). At acute epididymitis, being accompanied an ISH, the mechanical compression of vessels of a seed funicle, conducts to disturbances of hemodynamic that is at the bottom of rising of a resistance of a vascular bed (Ri in intratesticle centripetal arteries made  $0.81 \pm 0.02$ , and in arteries of an epididymis  $0.67 \pm 0.02$ ). Disturbances of a blood flow in vessels of an epididymis develop much quicker and begin at lower level of an ISH, than disturbances of a circulation is immediate in the testicle. (the augmentation of intrascrotal pressure at 1 cm of waters of the Art. conducts to Ved depression on 0,35 cm/sec. in a intratesticle artery and on 1,16 cm/sec. in an appendage artery). Thus, development of an ISH at an acute epididymitis

causes specific disorders of a hemodynamic in an epididymis, consisting in change of an inflammatory vasodilation by a vasoconstriction, augmentation of peripheric vascular resistance. High resistance of vessels of an appendage aggravates expression of an inflammation and worsens the disease forecast. Existence of an ISH in combination with rising of a resistance of a vascular bed of an appendage at acute epididymitis dictates need of performance of decompression of a cavity of a scrotum, thereby defining indications to surgical treatment.

The work is submitted to the International Scientific Conference «Innovative medical technologies», Russia (Sochi), 26-30 September 2013, came to the editorial office on 19.09.2013.

# TREE-FORM GROWTH AND SEGMENTAION OF BODY OF DEVELOPING ORGANISM

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Ontogenesis has two aspects – qualitative and quantitative. They correspond to two main components of development of all organisms:

1) growth is increasing of sizes;

2) differentiation is increasing of complexity by means of isolation of partes and appearance of every possible differences.

The both aspects of the development are inseparable interconnected. The considerable part of differentiation passes by means of uneven growth. Differentiative growth leads to division of body on the parts and may be called as segmentary growth. Differently say, the main mechanic of development of organism in its ontogenesis is intermittent, polyfocal growth of organism on its extent: centres of intensive growth alternate with intermediate parts, which grow slowly and narrow between isolated, increasing anlages of organs. Epitheliums form the main, primary organizers (proliferative epithelial anlages) of morfogenesis. Mesenchyma, its cells move from embryonic layers (epithelioformed stratums), is orientated on the epithelial anlages of organs (differentiative parts of embryonic layers) and is devided between isolated organic, epitheliomesenchymal anlages. Mesenchyma and its derivatives can form secondary organizers of morfogenesis. They modify growth of the primary organizers. The main types of epithelial growth:

1) by stratum, it can roll up (embryonic layers and neurulation, surface epitheliums);

2) tree-form growth – tubes of glandular epithelium and vascular endothelium repeatedly branch, their branches introduce into surrounding tissues with division of organ on parts (new organs, lobes, lobules).

Epithelial tube of body growths and branches much slowly.

The work is submitted to the International Scientific Conference «Fundamental research», Jordan (Aqaba), 9-16 June 2013, came to the editorial office on 25.09.2013.

#### EFFECT OF ENVIRONMENTAL FACTORS ON THE DEVELOPMENT OF BRONCHIAL ASTHMA IN CHILDREN

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Bronchial asthma (BA) is one of the most common allergic diseases. The authors conducted a study to determine the role of the impact of environmental factors in the development of BA. We studied 148 children with a diagnosed of asthma in fact (the main group). As a control, we examined 156 healthy children with an early age recurrent episodes of bronchial obstruction. We investigated the medical documentation of the patients (outpatient cards). In the statistical analysis we used nonparametric methods. Differences in relative indicators were studied by Fisher's exact test. Among the study group of children for intermittent disease was observed in 53 (36,3%) children, mild persistent - in 46 (31,5%) children, moderate persistent - in 32 (21,9%) children, severe persistent – in 15(10,3%) children. The duration of dispensary observation was on average 6,0 [4,0, 8,0] years. Early manifestations of allergy were observed in 137 (93,8%) children, including atopic dermatitis occurred in 128 (89,8%) children, food allergy- in 134 (92,6%), drug allergy - in 64 (43,8%) children, acute urticaria and angioedema – in 77 (53,1%) of the children, nasal congestion with no evidence of viral infection- in 76 (52,3%), contact dermatitis - in 54 (37,0%) children. Adverse environmental factors of the microenvironment are making a great contribution to the development of BA. We set significant differences between groups for the following factors: the presence of upholstered furniture and carpets in the bedroom (82,9%), keeping the books on open shelves (prolonged contact with house and library dust) (65,3% of children), the presence in the house of flowering plant (contact with pollen and fungi in soil) (86,3% of children); dampness and mold in the apartment (contact with fungi) (67,8% of children), the presence of gas stoves in the kitchen and the lack of fume cupboards (contact with nitrogen dioxide and other chemicals) (85,6% of children), living near major highways, industrial plants and other ecologically unfavorable objects (67,8% of children). In summary, we found that the studied group of children characterized by intermittent course of the disease, early onset of allergic symptoms and more exposed to adverse environmental factors.

The work is submitted to the International Scientific Conference «Fundamental and applied problems of medicine and biology», UAE (Dubai), 16-23 October 2013, came to the editorial office on 05.09.2013.

### AXIOLOGICAL ASPECT OF STUDYING THE HUMANITIES IN HIGHER MEDICAL EDUCATIONAL ESTABLISHMENTS

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The enormous progress made by medicine in recent decades requires life-long learning, permanent updating of knowledge, skills, and improving of personal qualities of a medical specialist. It is obvious, that a specialist possessing high intellectual and cultural potential and characterized by greater professional mobility easily adapts to the changing socio-economic conditions and to new achievements in his field of science. First-year students of medical schools are people with a shaped personality, and still not enough educated people, sometimes lacking willingness to consider complex phenomena of social and professional reality. Willingness of a future doctor for a holistic perception of the realities of professional work, mastering the experience of world culture, dialogical thinking as an integral part of the professional and personal culture, interdisciplinary synthesis of knowledge - these and many other factors suggest changing traditional approaches to medical education worldwide.

As a universal process, the humanization of medical education should be implemented in all components of education: in educational content, forms and methods of the educational process, requirements to the level of training. These are the conditions for establishing the priority of human values, for the development of creative capabilities of faculty members and students, whose joint activity is aimed at providing truly humane, competent deontological attitude to the patient. The researchers of the higher education humanization process note that it is very difficult to develop a universal recipe for the optimal combination of general scientific and humanitarian components of professional education. The key prerequisite here is to create a flexible system focused primarily on saturation of scientific and special disciplines with humanitarian content.

One of the promising models of educational process implementing humanitarian components into specialized medical subjects was developed and tested in the educational process at the Volgograd state medical university. The model involves creation of pedagogical environment (so-called