

DEPUTY EDITOR-IN-CHIEF'S PREFACE TO ISSUE 6, 2022

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Dear readers!

We present to your attention the final issue of our journal for 2022, which included works on the topical issues of Russian medical science and practical health-care, in particular, on biochemistry, internal diseases, clinical laboratory diagnostics, microbiology and virology, pathological physiology, traumatology and orthopedics, neurology and neurosurgery and many others.

I would like to highlight the most interesting of them.

The issue opens with two discussion articles. In the work of N.P. Babushkina et al. (Tomsk) "Association of genes of DNA repair systems with Parkinson's disease", the involvement of associated genes in the pathogenesis of Parkinson's disease through mitochondrial dysfunction is shown. A.A. Chuyanov et al. (Kemerovo) in their article "Olfactory HLA-associated mechanism of formation of married couples in the development of congenital heart diseases in children" prove that the presence of specific combinations of HLA-DRB1 alleles in mutual olfactory sympathies indicates the participation of HLA molecules in pheromonal reception. Both articles describe the role of certain pathogenic factors in the studied actual diseases and the possibilities of their early diagnosis.

The article by T.V. Prokofieva et al. (Astrakhan) demonstrates the relationship between the level of endogenous intoxication and the frequency of exacerbation and the severity of clinical manifestations of chronic obstructive pulmonary disease.

Articles on clinical medicine devoted to internal diseases are of scientific and practical interest. In the work of E.Yu. Chashkova et al. (Irkutsk) "Protracted fever after infliximab induction therapy in a patient with ulcerative colitis", the authors present a rare case of a paradoxical incurable hyperergic reaction that occurred after using genetically engineered biological therapy with tumor necrosis factor α blockers in a patient suffering from ulcerative colitis. A detailed study of this clinical case makes it possible to analyze undesirable manifestations and apply this experience in clinical practice.

In their literature review, L.A. Kuznetsova and N.E. Basova (Saint Petersburg) present the role of endothelial nitric oxide synthase and nitric oxide, as well as arginine, the enzyme substrate, in metabolic syndrome and COVID-19. According to the authors, nitric oxide therapy at certain stages of COVID-19 can become an affordable and quite effective way to treat such patients.

The interest of specialists can be heightened to the articles in the "Clinical laboratory diagnostics" section. In the work by P.A. Khromova et al. (Irkutsk, Saint Petersburg), it was found that the molecular mechanisms of *M. tuberculosis* adaptation to the therapy with anti-tuberculosis drugs are not unique for the child population, but reflect the general processes of the spread of drug resistance among *M. tuberculosis* strains in Russia as a whole.

The article by L.A. Dmitrieva et al. (Irkutsk) "Changes in the immunological reactivity in patients with coxarthrosis and the factors that determine them" is devoted to assessing the risk of possible postoperative complications in patients with severe articular pathology and can be interesting not only for specialists in clinical laboratory diagnostics, but also to orthopedic trauma surgeons.

The article by T.V. Meka-Mechenko et al. (Almaty) from the "Microbiology and Virology" section is dedicated to the determination of genotypic properties and description of gentotypes of collection strains of the plague microbe from different natural plague foci of the Republic of Kazakhstan.

A number of articles are devoted to research in traumatology and orthopedics and to the developed new technologies for the diagnosis and treatment of injuries and pathologies of the musculoskeletal system. The literature review by A.P. Ivankov and P.V. Seliverstov (Irkutsk) is of undoubted interest for specialists. It represents an urgent problem of modern traumatology – stress fractures associated with insufficiency of the condyles bone tissue – a special type of stress fractures that occur more often in people aged 50–55 years in response to everyday activity.

A group of authors under the guidance of S.N. Leonova (Irkutsk) presented a method that allows to objectively determine the relative position of the metatarsal heads and, accordingly, to choose the optimal surgical tactics for the treatment of patients with forefoot deformities.

Articles by D.V. Menshova et al. and D.B. Balzhinimaev et al. (Irkutsk) demonstrate high clinical efficiency of the developed new surgical technologies. The first article describes a method developed by the authors for the surgical treatment of massive ruptures of the rotator cuff tendons using transposition of the tendon of the latissimus dorsi muscle. The second article presents a comparison of the results of reconstruction of the anterior cruciate ligament with the preparation of an autograft according to the known Lubowitz method and according to a new method developed by the authors.

The section “Surgery” includes an article by E.A. Ilyicheva and G.A. Bersenev (Irkutsk), devoted to the determination of the features of multigland parathyroid disease in primary hyperparathyroidism in comparison with single-gland parathyroid disease, and the article by S.N. Styazhkina et al. (Izhevsk), which demonstrates a clinical case of a rare combination of phlegmonous appendicitis, peri-appendicitis, and diverticulitis.

The issue ends with an article by V.I. Perkhov et al. (Moscow), which describes the processes of displacement of market self-regulation and the genesis of a mixed public-private (hybrid) healthcare economy.

In conclusion, I would like to send a New Year greetings to the authors and readers, the reviewers, the members of the editorial board and editorial council of the “Acta biomedica scientifica” and to wish everyone health, good luck and further professional achievements in fundamental and practical medicine!

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