

## DEPUTY EDITOR-IN-CHIEF'S PREFACE TO ISSUE 6, 2025

**Vladimir A. Sorokovikov**

**Dr. Sc. (Med.), professor**

Dear colleagues!

Another calendar year is coming to the end. During this time, many scientific articles by both Russian and international authors have been published. All of these will undoubtedly form the basis for new researches in the coming year. The journal's final issue for 2025 has rightfully become one of the most interesting.

Over the past year, research in the field of genetics has repeatedly confirmed its importance and potential for development. A team of authors from Tomsk (M.M. Gavrilenko et al.) assessed the role of alternative splicing of the *FLT1* gene in the development of fetal growth retardation. Such events as excessive intron retention and exon skipping lead to increased expression of shortened anti-angiogenic proteins, disrupting the balance of angiogenesis and contributing to placental dysfunction.

Another group of authors from Tomsk (M.M. Tsyganov et al.) assessed the presence of chromosomal aberrations and expression in the main genes of the homologous recombination system (HR) in lung tumors. The study was conducted on patients with non-small cell lung cancer (NSCLC) stage IIA-IIIB. Although the interaction between abnormalities in the genes of the HR system and the assessment of the expression profile of these genes, and therapeutic responses still requires serious study, the authors have already established that the study of this issue can lead to more effective and individualized strategies for the treatment of NSCLC.

We would also like to note the experimental study by a team of authors from Blagoveshchensk (P.D. Timkin et al.), in which the authors modeled COPD-like changes in rats exposed to inhalation cigarette smoke and tobacco aerosol, comprehensively assessing the morphological changes in lung tissue and the level of expression of the *TRPM8* gene, as well as key COPD marker genes.

Cancer research extends beyond the genetic level. We would like to separately highlight the joint article by authors from Yaroslavl and Moscow (R.S. Begunov et al.) that explores the search for new cytotoxic agents from a series of fused benzimidazole diones with a nodal nitrogen atom as a basis for developing effective clinical therapeutic agents for the treatment of cancer. The obtained results showed that this class of compounds is promising for the development of new antitumor agents with selective toxicity. This research can rightfully be considered advanced and the most promising in its field.

The final issue of the journal included several interesting clinical cases. One of them was presented by a group of authors from Irkutsk (E.G. Grigoriev et al.) about the successful emergency staged surgical treatment of a patient with chronic pancreatitis complicated by perforation of postnecrotic cysts, duodenal fistula and widespread peritonitis. Since pancreatectomy (a forced surgical procedure) is technically complex and there is a high risk of significant blood loss, staged surgical intervention has made it possible to achieve good results.

Another clinical case, also presented by authors from Irkutsk (D.V. Menshova et al.), describes the surgical treatment of tenosynovial giant cell tumor with one-stage resection of the tumor-like formation and additional stabilization of the ankle joint according to Brostrom – Gould procedure. The tumor-like formation was completely removed, and additional stabilization of the ankle joint was performed. After a year of observation, the patient has shown no signs of tumor recurrence, and ankle joint function and ability to work have been fully restored.

These are far from all the interesting works in the sections of surgery and traumatology. The results of using a new method of surgical correction of post-traumatic valgus deformity of the hindfoot using preoperative planning and 3D modeling of the bone graft are presented by traumatologists of the Irkutsk Scientific Centre of Surgery and Traumatology – I.V. Usoltsev et al. This method allows for the pre-fabrication of a model-specific allograft and the necessary correction of the hindfoot deformity.

Another group of authors from the Irkutsk Scientific Centre of Surgery and Traumatology (E.E. Chepurnykh et al.) analyzed the latest studies devoted to the problem of the development of enteral insufficiency in secondary peritonitis. The results of such a comprehensive work will be useful and interesting for surgeons and specialists in related fields due to significant gaps in this topic.

In the Psychology and Psychiatry section, you will find current research examining the psychological indicators of patients exposed to severe stress due to various events: from the loss of loved ones to participation in military operations. A team of authors from Angarsk (O.I. Shevchenko et al.) studied the relationship between psychological indicators and the level of continuous potential of the brain in participants in a modern armed conflict; and authors from Moscow and Ulan-Ude (K.I. Usov et al.) analyzed the emotional states of individuals with post-traumatic stress. Both studies have practical value for working with a special category of patients who require an individual approach.

In addition to the works listed, the issue also features sections on pediatrics, phthisiology, obstetrics and gynecology, internal medicine, etc. Each of the published articles is, first and foremost, the result of the work of entire institutions and teams dedicated to the endless search for solutions to complex problems in the fields of science and medicine. On behalf of myself and the editorial team, I thank all the authors and reviewers who contributed to the journal's work throughout the year. We wish you good health in the New Year and continued success in your future endeavors!

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