

DEAR COLLEAGUES!

We are delighted to present a special issue of the journal “Sovremennye tehnologii v medicine” (Modern Technologies in Medicine), which is entirely addressed to problems of modern spine surgery. This issue is based on the materials of the XI Congress of the Russian Association of Spine Surgeons, which was held in 2021, in the city of Nizhny Novgorod. This meeting brought together specialists from all regions of the Russian Federation, as well as from abroad. Due to the recent scientific progress, including the development and practical use of novel technologies, spinal surgery has received a powerful impetus thanks to collective efforts of neurosurgeons, orthopedic surgeons, oncologists, and neurophysiologists.

Taking into account the epidemiological situation in the world and the limited face-to-face contacts between the participants, the organizing committee of the Congress and the editorial board of this Journal decided to publish some of the congress materials in this special issue of the journal.

The selected articles represent original contributions from specialists working in the fields of digital analysis of gait biomechanics, intraoperative neurophysiological monitoring, big data analysis, and other areas. Based on these technologies, a personalized approach to the surgical treatment of patients with spinal disorders becomes attainable. Among the published materials, there are innovative studies on auto- and allografting of vertebral bodies and pedicles in patients with impaired bone density, minimally invasive methods of restoring the vertebral arches, and 3D printing technologies for manufacturing of individual navigation templates to facilitate the safe passage of implants into the vertebrae. Additional materials include the diagnostics and surgical treatment of extremely rare intramedullary tumors of the spinal cord and the analysis of the safety and effectiveness of the novel minimally invasive approach to the anterior structures of the lumbar spine.

We hope the articles presented in this special issue with their scientific and practical significance, will find their use in various areas of spinal surgery.



Best regards,
Editors of the special issue

Sergey G. Mlyavykh
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