

Editors' Introduction: Modern Technology Applications in Minimally Invasive Spine Surgery Techniques

KAI-UWE LEWANDROWSKI, MD,¹ DOMAGOJ CORIC, MD,^{2,3} ANTHONY YEUNG, MD,⁴ MICHAEL Y. WANG, MD⁵

¹Center for Advanced Spine Care of Southern Arizona, Tucson, Arizona, ²Carolina Neurosurgery & Spine Associates, Charlotte, North Carolina, ³Atrium Musculoskeletal Institute, Charlotte, North Carolina, ⁴University of New Mexico School of Medicine Department of Neurosurgery Albuquerque, New Mexico, ⁵Desert Institute for Spine Care, Phoenix, Arizona, ⁵Department of Neurosurgery & Rehabilitation Medicine, University of Miami Miller School of Medicine, Miami, Florida

As a matter of tradition, the *International Journal of Spine Surgery (IJSS)* is proud to bring to you yet another special issue, this time highlighting some of the contemporary modern technology applications in minimally invasive spinal surgery and how those applications impact patient outcomes. Examples include endoscopic spinal surgery, expandable cage, non-fusion technologies, artificial intelligence, and novel combinations and staged application of existing technologies in ways that are available to readers for the first time.

We, the editors of this *IJSS* special issue, have attempted to provide a timely and exciting collage of original articles that we are confident readers will find both timely and highly informative. The selection of articles was based on the demand for clinical studies that reflect contemporary trends in minimally invasive and endoscopic spinal surgery, which in many countries is increasingly accepted and adopted. We recognize that this trend results from the need for less costly, yet safe and efficient solutions for the spine's common degenerative conditions. Patients and other stakeholders in the ongoing debate on better value-based spine care, including healthcare policymakers and payers, are demanding that spine surgeons improve on the complication, reoperation, and readmission rates established and accepted with open spinal surgeries. Patients are looking for less burdensome and risky treatments with shorter time to recovery, return to work, and social reintegration following spine surgery.

This *IJSS* special issue also attempts to provide readers with a snapshot of contemporary diagnostic algorithms and procedures intended to treat the spine's common conditions with the use of advanced instrumentation and technologies targeted at vali-

dated pain generators. Furthermore, it provides the reader with a synopsis of the fundamentals of endoscopic and other minimally invasive spine surgery techniques by discussing the historical background, clinically relevant aspects of applied physics and computer science, choice of anesthesia, indications, appropriate patient selection, and expected clinical outcomes. We hope that this *IJSS* special issue will motivate readers to become more interested than ever in modern minimally invasive and endoscopic spinal surgery.

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Corresponding Author: Kai-Uwe Lewandrowski, MD, Staff Orthopaedic Spine Surgeon, Center for Advanced Spine Care of Southern, Arizona and Surgical Institute of Tucson, AZ 85712. Phone: (520) 204-1495; Fax: (623) 218-1215; Email: busniess@tucsonspine.com.

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