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Preface

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Guest Editors

With the rapid advancement in spinal techniques and technologies in the last decade, it is interesting to reflect on the first minimally invasive spine surgery issue of the *Neurosurgery Clinics of North America* published in January 1996. The cutting-edge procedures presented in that issue included percutaneous spinal injections, percutaneous facet rhizotomy, percutaneous discectomy (manual, automated, and laser), and chymopapain treatment for disc degeneration. Endoscopic approaches to the thoracic and lumbar spine were also reviewed, because the popularity of these techniques was growing at the time.

Although some of these tools have fallen out of favor, others have found a lasting place in the spinal surgeon's armamentarium. The advent of the use of tubular retractors to perform muscle-dilating approaches marks the difference between the current issue and the one from a decade ago. These retractor systems preserve the anatomic and functional capacity of the paraspinal structures without sacrificing efficacy or the ability to achieve the surgical objective.

However, minimally invasive spinal surgery involves more than just using a different retractor. It adds a new dimension to the elaborate clinical evaluation of patients and their radiographic images as the surgeon seeks to define the specific goals of surgery. Indeed, the goals of minimally invasive techniques remain the same as in 1996, namely, to circumvent iatrogenic surgical morbidity associated with open surgery by decreasing tissue injury and blood loss, and thereby reduce length of hospitalization, perioperative pain, narcotic usage, complication rates, and recovery times. In many cases, minimally invasive techniques have converted simple decompressive operations into outpatient procedures. It is for these reasons that minimally invasive spine surgery has captured the interest of an ever-expanding number of surgeons and patients alike.

In this issue, we have sought to outline the state of the art in minimally invasive approaches to all levels of the spine. The history of minimally invasive spine surgery is presented, followed by discussions of the various techniques available,

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organized by spinal region. Although predominantly used in the treatment of degenerative spinal disease, minimally invasive options have also been developed to address spinal column and intradural spinal tumors, and these techniques are presented here as well. Finally, vertebroplasty and kyphoplasty are presented as minimally invasive approaches that can be used at any level of the spinal column.

We are grateful to all of our authors for their outstanding contributions. We believe you will find their expertise as presented here both interesting and clinically useful. Today, as in 1996, the predominant limitation to treating complex conditions of spinal disease in a minimally invasive fashion remains technological, and as new devices evolve, so will the minimal access techniques that employ them. We therefore eagerly anticipate the issue of the *Neurosurgery Clinics of North America* in which the advances in minimally invasive spine surgery over the next decade are presented.

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