

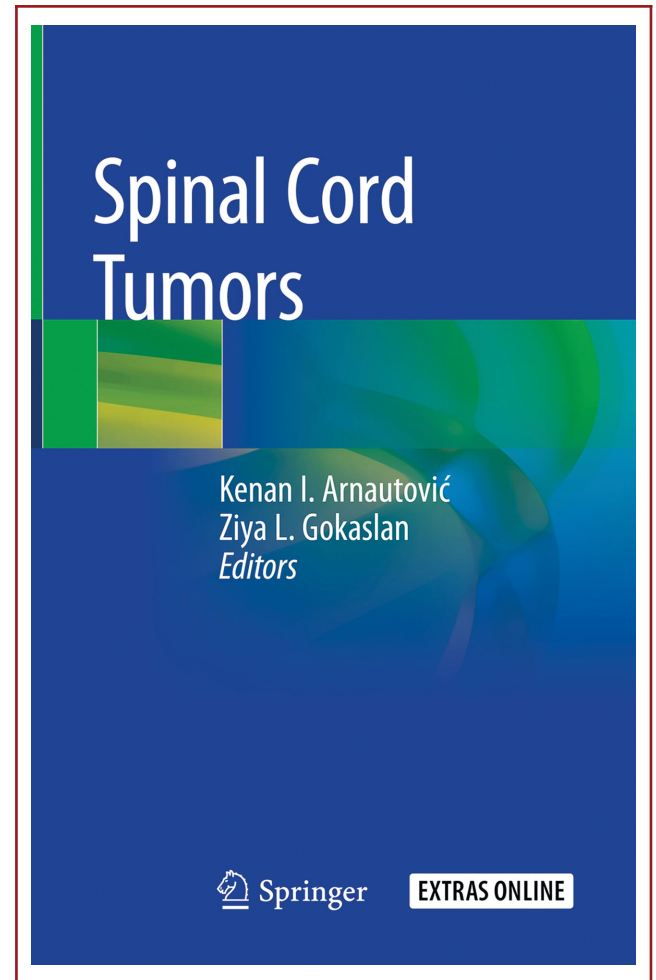
Book Review: *Spinal Cord Tumors*

By: Kenan I. Arnautović, Ziya L. Gokaslan, editors
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It is a pleasure to provide a review of *Spinal Cord Tumors*, edited by Kenan Arnautović and Ziya Gokaslan. Although the title might suggest that the scope of the book is restricted to tumors of the spinal cord, this text provides an in-depth review of all intradural spinal pathologies. The editors are to be congratulated for assembling a worldwide panel of expert contributors whose rich experience permeates the book. Given the relative rarity of these tumors, most spine surgeons will benefit from this collected expertise. *Spinal Cord Tumors* provides a helpful reference for all physicians, trainees, and allied health professionals involved in the care of patients with intradural spinal tumors. It provides a state-of-the-art update on the evaluation, management, decision-making, and postoperative care of these complex patients.

Much of the value of this book is in the new information that is presented. The updated review of the world's experience treating these rare intradural pathologies provides the reader with current opinion on the surgical, radiation, and medical management of these rare tumors. All of the chapters are well-referenced with numerous citations. Moreover, the book covers many novel concepts/technologies. For example, I enjoyed reading about the use of diffusion tensor imaging and tractography in the preoperative evaluation of spinal cord tumors and how this advanced imaging can help diagnose and determine resectability of spinal cord tumors. The chapter on current standards in electrophysiologic monitoring is a must for surgeons operating on patients with intradural tumors. Can 5-aminolevulinic acid be useful in the removal of spinal cord gliomas as it is in the brain? These novel subjects can be found throughout the text and are quite thought provoking.

One of the challenges for a book of this scope is for the reader to be able to readily locate information of interest. The selection of chapter topics and their organization facilitates this and is one of the true strengths of the book. The book begins with a series of "introductory" chapters that provide critical core information for the reader. A brief history of the field (which is quite fascinating), followed by the epidemiology of these rare disorders provides important background. Spinal cord anatomy, differential diagnosis, neuropathology, and the neurological presentation are all key elements of the evaluation of the patient with an intradural lesion, and these



chapters provide a critical substrate for digesting subsequent material. For those clinicians involved in the surgical treatment of intradural tumors, the chapters on neurophysiologic monitoring and anesthetic considerations are must reading. These introductory chapters are then followed by a comprehensive survey of the individual intradural pathologies. These chapters include additional epidemiologic data as well as sections on surgical management (and radiation/chemotherapeutic strategies where applicable). These also contain helpful figures including radiologic imaging, artist's drawings, and intraoperative photos. Several chapters (Epidemiology, Astrocytoma, Hemangioblastoma, and Myxopapillary Ependymoma) even have supplementary online content including surgical video. It would have been nice to have this additional content for some of the other chapters as the intraoperative photos are not nearly as effective as video for conveying surgical technique. In addition to the more common tumors,

the book also includes sections on “rare spinal cord tumors” and “sacral tumors.” Lastly, the book concludes with 4 final chapters on critical topics including instrumented fusion following tumor resection, radiation and radiosurgery, complications, and rehabilitation. Each of these are invaluable. Every surgeon needs to know the risk factors for the development of postoperative deformity in patients with intradural tumors so that they can counsel patients appropriately and utilize appropriate surgical strategy. Moreover, our radiation oncology tools have evolved substantially in recent years. The advent of stereotactic body radiotherapy and spinal radiosurgery have allowed for high-dose conformal radiation to tumors while limiting the toxicity for adjacent organs at risk. No text on intradural tumors would be complete without an update on the role of modern radiation techniques in the management of these diseases in both the primary and recurrent/residual settings. In addition, the book constantly reminds that the management of intradural tumors is complex and that surgery for tumors within the spinal cord carries substantial risk. Every surgeon caring for these patients must be aware of the potential complications and how to manage them. This is critical for counseling the patients in preparation for surgery and for guiding them safely through the surgical process. The chapter on complications is another must read portion of the book. Perhaps, a sub-section on “What to do when the electrophysiologic monitoring declines during surgery?”

would be a useful addition to this chapter. Lastly, the chapter on rehabilitation is a perfect conclusion to the book. Many surgeons have limited insight into the evaluation and treatment provided to our patients during their postoperative rehabilitation. This is an appropriate topic on which to conclude the book.

In summary, *Spinal Cord Tumors* is an important contribution to the spinal oncology literature. It is a most valuable reference for clinicians caring for patients harboring these complex pathologies. I highly recommend this book as a comprehensive, contemporary overview of intradural tumors and their management.

Disclosures

The author has no personal, financial, or institutional interest in any of the drugs, materials, or devices described in this article.

Laurence D. Rhines, MD

*The University of Texas MD Anderson Cancer Center
Houston, Texas*

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