BOOK REVIEW


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The premises

An atlas of neurosurgical techniques must strike a fine balance between text and illustrations, as well as clearly define its target audience. Personally, I'm looking for neurosurgical atlases that are: (1) well organized, with good, logical divisions and clear headings, (2) well illustrated, with good diagrams, tables, illustrations, photos and perhaps even video access, (3) concisely written and, lastly, (4) authored by knowledgeable, active practitioners of our specialty and not champions of the past.

The book

Color Atlas of Brain Stem Surgery, edited by Drs. Robert F. Spetzler, M. Yashar S. Kalani, Peter Nakaji and Kaan Yagmurlu, consists of 416 pages divided into 5 sections, plus an index. The first section describes the relevant anatomical basis for brain stem surgery, and the second section details the safe entry zones into the brain stem. The next two sections present the tenets of brain stem surgery and the surgical approaches used. The last section details more than 50 patient cases, highlighting each patient's past medical history, presenting symptoms, preoperative imaging, diagnosis, the planned surgical approach, patient positioning, intraoperative and postoperative imaging, and patient outcome. Included are also beautiful videos of 12 thalamic and pineal region lesions, 8 midbrain lesions, 13 pontine lesions, 7 medulla oblongata lesions and 11 cervico-medullary lesions. Lastly, the book offers stunning digital 3D animations of the main seven surgical approaches used for the majority of the cases presented in this book.

The verdict

The book has no defined target audience, and, as brain stem lesions are quite rare, the number of neurosurgeons facing such lesions is very limited. However, because of the features discussed below, the book reaches far wider than its title suggests.

The book has logical subdivisions annotated by clear headings and subheadings. The atlas approaches the brainstem regionally, allowing the reader to find a logical and accessible map to the separate subdivisions of the brainstem, each of which has its own special anatomic and surgical considerations. However, as the patient positioning and surgical approaches can be used for many other and more frequently occurring pathologies than presented here, the atlas should have an appeal to a broad audience.

The book contains 1700 color illustrations, dissections, clinical images and line drawings. The illustrations are at times breathtakingly beautiful, and the virtuoso artists lead by medical illustrator Kristen Larson Keil, are to be commended. Furthermore, the brain dissections by Kaan Yagmurlu, frequently presented side-by-side with intraoperative images, give this publication an unsurpassed didactic quality.
The writing style is concise, allowing for a very comprehensive book. Dr. Spetzler, his co-editors and Thieme have done a tremendous job in creating an atlas that gives its readers technical guidance for approach selection, timing of surgery and optimization of outcomes. The authors succeed in balancing a cautionary tale of the brainstem, as an extremely eloquent structure that demands rigorous decision-making when considering surgery, with the tale that surgery may by technically possible because of vast improvements in imaging quality over time allowing for improved preoperative planning, intraoperative neuromonitoring, operating microscopes, intraoperative navigation for submerged lesions, tractography for pathologies that deviate neural pathways and microinstruments that bring precision and light to deep, dark surgical corridors.

**The verdict**

This hardcover edition of Color Atlas of Brainstem Surgery is actually a spectacular book. It is clearly created by neurosurgeons for neurosurgeons. It is well organized, concise and well written. Its illustrations are numerous, didactic and at times breathtakingly beautiful. The book feels solid, and its physical presence leaves nothing wanting. The 51 videos add additional value along with the 7 digital 3D animations of the main surgical approaches.

In conclusion, I’d like to quote Dr. Lawton’s foreword to this book: “No one has done more than Robert Spetzler to advance the idea that the brainstem is not inviolable, inoperable territory,” and this Color Atlas of Brainstem Surgery is truly a worthy testament to Dr. Spetzler’s legacy.