

Remi Nader, Scott C. Berta, Cristian Gragnaniello, Abdulrahman J. Sabbagh, Michael L. Levy: Neurosurgery tricks of the trade: spine and peripheral nerves

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Renato Gondar¹ · Karl Schaller¹

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We are now ending a 4-week period in the company of this book, which indeed became a companion, both in and even outside of the hospital, a fact that already makes a positive impression.

This hardcover book presents an engaging title: “Tricks of the trade,” an expression that captivated our families and colleagues while looking at it, inviting us to open it and discover its content. Targeting practicing neurosurgeons and residents, it proved from the very first chapters to be concise, to the point and encouraging. The editors assembled and managed an international group with more than 150 contributors to construct this 481-page and 103-chapter book. Despite being a multi-author text, the writers minimized redundancy, only with some overlap in several chapters on the most common topics and procedures (i.e., lumbar microdiscectomy). The terminology and nomenclature were well defined throughout the text. The table of contents and index sections are clear. The chapters are well referenced and up to date. The order of the information flows naturally within and between the chapters of a given section.

The book follows the same structure as “Neurosurgery, Tricks of the Trade: Cranial.” Both the spine and peripheral nerve sections are divided into two subsections: one with “*approach-based*” chapters and a second one with “*pathology-based*” chapters.

The spinal section includes 88 of the 103 chapters of the whole book. The first 45 of these are “*approach-based*”

chapters where we can find a comprehensive mix of approaches and surgical procedures. They are presented in craniocaudal order, from the craniocervical junction and anterior and posterior cervical approaches to thoracic procedures and anterior/posterior lumbosacral approaches. Each of these chapters starts with a small introduction and background part (including advantages, indications, contraindications). Then, the operative details and preparation (preoperative planning and special equipment) are described in a logical manner. To finish each chapter, the authors present expert suggestions, avoidances and salvage/rescue comments, followed by post-operative considerations and potential complications.

This structure is intuitive and complete. It describes what is needed for clinical reasoning, to inform and to perform surgery, as well as to deal with potential difficulties. No important topic is missing, and additional chapters are dedicated to minimally invasive and neurointerventional procedures. Pertinent chapters can be reviewed repeatedly as a stand-alone reference prior to performance of the respective procedures. The text size and content are ideal for a book of this format, where in-depth descriptions of particular pathologies and procedures are not the aim. The mixture in the same chapter of intraoperative photos, CT scans, fluoroscopy images and anatomical drawings is a positive point. *Expert suggestions and comments, Key steps and Avoidances/hazards/risks* are good pearls.

Nevertheless, compared with other surgical atlases and written compendiums on the fundamentals of respective surgical techniques, we would have preferred to have the text on operative details presented in a less prosaic but rather more stepwise manner. It would be easier to systematize and follow. Illustrations accompanying the description of the surgical techniques should be more realistic, i.e., using distinct colors for the concerned neurovascular structures (for example, the

✉ Karl Schaller
karl.schaller@hcuge.ch

¹ Hôpitaux Universitaires de Genève, Rue Gabrielle-Perret-Gentil 4, Geneva 1211, Switzerland

illustrations in Chap. 16, “Transthoracic Discectomy: Anterior Approach,” allow better distinction between nerves and vessels than those of most other chapters). They should also be more detailed for the key stages of the procedures and then presented in a step-by-step manner.

The second half of the spinal section is composed of “*pathology-based*” chapters according to the underlying disease (trauma, infections, tumors, vascular, pain and pediatric). This also includes explanations of selected approaches and procedures, postoperative management and outcomes that might be expected, which cause some redundancy with regard to the “*approach-based*” chapters.

The chapters on spinal vascular malformations are a model, being comprehensive and well organized: The descriptions of the various pathologies are followed by the surgical techniques in a single chapter for each disease. In addition, it is very helpful for practicing neurosurgeons and trainees to find a detailed description of percutaneous interventional procedures, such as cervical facet joint injection, lumbar epidural steroid, injections, lumbar discography, lumbar facet blocks and spinal cord stimulation. There are also specific chapters on radiosurgery, metastatic disease, AVMs and modern aspects of neuromonitoring, although the latter is missing information on the D-wave, for example.

An overview of navigation systems is presented throughout the chapters, referring to the different brands currently available on the market. The same holds true for different medical devices such as implants, cages, prostheses, rods and screws.

However, the overall distinction between “*approach-based*” and “*pathology-based*” chapters is somewhat ambiguous, particularly in the subsections on spinal trauma,

infections and tumors, where there are “*pathology-based*” chapters with “*approach*” in the title and “*approach-based*” chapters within the “*Spine by pathology*” section of the book. This is rather misleading and should be changed in a possible second edition.

The peripheral nerves section comprises 15 chapters. It is also divided into “*approach-based*” and “*pathology-based*” chapters mixed together and also presented in a craniocaudal orientation, from the upper extremity diseases to the lower extremity with a final part on special topics. The organization of each chapter is the same as described before for the spinal section. Despite being relatively short, the peripheral nerves section still provides neurosurgeons and trainees, who might be less experienced in such cases, good coverage of the basics. Even so, references to ulnar nerve transposition, median nerve decompression and nerve transfers are missing. Chapters on peripheral nerve tumors other than paraspinal tumors should also be considered. Another chapter on the management of peripheral nerve pain could be a good addition in a future edition.

All in all, this is a useful illustrative book focusing on the very practical aspects of the management of spinal and peripheral nerve pathologies. This book is easily readable, logical and not at all boring. It has an adequate level of information, although it could be optimized by more step-by-step illustrations. It might also be seen as a complement to practical hands-on cadaver learning and to more comprehensive textbooks on the matter. It could be particularly helpful for residents on duty needing to look up the sequences of a particular procedure.