



## Atlas of Functional Anatomy for Regional Anesthesia and Pain Medicine

**Miguel Angel Reina (Editor). José Antonio De Andrés, Admir Hadzic, Alberto Prats-Galino, Xavier Sala-Blanch, André A.J. van Zundert (Associate Editors). Springer, 2015. ISBN: 978-3-319-09521-9**

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The *Atlas of Functional Anatomy for Regional Anesthesia and Pain Medicine*, a multi-author first edition by editor, Dr. Miguel Angel Reina, serves as a photographic atlas of actual human images and tissue samples. The authors' intention is to provide histological and anatomical images that may help practitioners in answering questions about complications associated with regional anesthesia. They state, "Each chapter intends to act as complement and facilitate the understanding of chapters of books that do not have this type of graphic material." As noted, it is not meant to serve as a primary comprehensive textbook.

The textbook is separated into four parts. The first section is comprised of 18 chapters and presents microscopic images of peripheral nerve and tissue damage due to direct nerve puncture. The second section is the lengthiest with 24 chapters. It includes magnetic resonance images of the spine and associated compartments, including nerve roots, dura mater, and the ligamentum flavum, as well as images of lumbar punctures performed with a variety of needle types. The third section is devoted to the devices involved in regional anesthetic blockade, including needles and catheters. Finally, the fourth section of the atlas covers research techniques and the technology involved in acquiring the images in the atlas. The final two sections are the briefest of the four, being three and four chapters, respectively.

Each chapter begins with a brief basic anatomical description of the structures featured in the subsequent pages. The chapters in the first two sections of the textbook include many distinguishing features and also summarize important characteristics and functions of the structures seen

in the histological pictures. In further sections, high magnification images review commonly used devices such as needles and catheters. There is also a discussion of quality control, as imperfections and defects in instruments (e.g., spinal needles and catheters) can easily be seen in the photos.

The images acquired for this textbook are nothing short of spectacular. The level of detail in the histological samples as well as in the anatomical images is especially impressive. The relevant structures in the images are well labelled, with each described in detail in an accompanying legend. Notably, I found it particularly interesting to see imperfections on the spinal needles in the high-resolution scans made by different manufacturers as well as to see particles on the surgical gloves, some of which may be transmitted to epidural catheters.

One criticism of the book is the occasional repetition of some of the images. For example, although the entire image was not reproduced, it is apparent in Figs 2.14a and 2.14b that the same structures are labelled in both images and there are only minor differences between the two images; this was a recurring pattern throughout the book. This textbook is quite lengthy, and at just under one thousand pages, some images could have been left out.

Overall, this textbook has accomplished what it was intended to do. As the authors note, it is not a textbook to replace other texts on regional anesthesia or surgical techniques; rather, it is intended to provide information not found previously in anatomical and histological atlases. This text will make an excellent addition to any departmental library or personal library of the dedicated regionalist; the reader will certainly not be disappointed with the illustrations provided in this book.

**Conflicts of interest** None declared.

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