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Neuropathology and Neuroradiology: A Review

AJNR Am J Neuroradiol 2002, 23 (4) 736
<http://www.ajnr.org/content/23/4/736>

This information is current as
of August 10, 2025.

Neuropathology and Neuroradiology: A Review

Jonathan Stuart Citow, Robert L. Wollman, and Robert L. Macdonald. New York, NY: Thieme; 2001. 239 pages. \$69.00

The authors provide a brief and incomplete review of neuropathology and neuroradiology. The book is divided into 32 chapters: General Neuropathology, Glial Cell Response to Injury, Nervous System Development, Developmental Pathology, Perinatal Brain Injuries, Infectious Diseases, Infectious Pathogens, Oncology, Differential Diagnosis by Location, Phakomatoses, Intoxication and Drugs, Chemotherapy, Metal Toxicities, Vitamin Deficiencies, Acquired Metabolic Diseases, Congenital Metabolic Diseases, Degenerative Diseases, Demyelinating Diseases, Ischemia and Hypoxia, Vascular Diseases, CNS Trauma, Skull Diseases, Developmental Spinal Lesions, Spinal Tumors, Spinal Vascular Diseases, Spinal Infections, Spinal Inflammatory Diseases, Spinal Degenerative Diseases, Spinal Trauma, Peripheral Nerve Disorders, Neuromuscular Junction Diseases, and Muscle Diseases.

The organization and presentation of the book involves the integration of the pathologic features and imaging, which is a positive feature of the text. Although separate neuropathology chapters are included, no such chapters exist for neuroradiology. This is a weakness of the book because it is supposed to be a review of neuroradiology and should, therefore, include a separate chapter that reviews the current status of neuroimaging techniques and the techniques that are useful in various clinical scenarios. The book is written with a bullet style in which a few important clinical and pathologic features of each entity are cited. It reads as a dictionary would, with lists of diseases and a few important clinical and pathologic features mentioned. Salient radiologic features are generally not discussed.

The content of the book reflects the fact that none of the coauthors is a neuroradiologist or radiologist. Although the very basics of neuroradiology are occa-

sionally discussed in certain diseases, recent technological advances in routine clinical use are not covered. For example, in the section dealing with cerebrovascular accidents, there is no mention of the usefulness of diffusion-weighted MR imaging. Likewise, the use of MR angiography in the evaluation of patients with atherosclerosis is not mentioned. There is a paucity of images, and the figure legends are not descriptive enough. The figure legends also contain numerous mistakes. For example, an axial fluid-attenuated inversion recovery (FLAIR) image of the brain is referred to as an "infused T1-weighted MR." The quality of the images is adequate.

The authors use nine texts as references for the entire book. These references are not directly cited in the text, and only two are radiology texts. The content appears to be fairly accurate.

I am not aware of a similar book that reviews both neuropathology and neuroradiology. As far as it being a review of neuroradiology, this book is far from comprehensive, and it is not nearly as valuable the review text by Grossman and Yousem, *Neuroradiology: The Requisites*. Radiology residents, neuroradiology fellows, and, practicing radiologists are much better served by Grossman and Yousem's text.

The teaching value of the present book is limited to individuals who already have a substantial knowledge of the neurosciences and who are in need of a quick, brief review; however, no topic is covered to any great extent. Although this book is not comprehensive, it does provide material that medical students can use in their preparation for board examinations. The book can also be useful to pathologists, neurologists, and neurosurgeons who need a quick review before their board examinations. This book, however, is not well suited for a radiologist or neuroradiologist.

The Spine Dictionary: A Comprehensive Guide to Spine Terminology

Christopher J. Ceneteno, MD. Philadelphia, Pa: Hanley and Belfus; 2001. 290 pages. \$69.95

Whether anyone would ever actually buy this book if they had to rely just on the title is not at all certain. *The Spine Dictionary* does not really sound that engaging; it adequately but unimaginatively describes what is, ultimately, an interesting and useful volume. Medical textbooks do not have to sound appealing to sell, nor do they have to be useful in some medically necessary way. Dr Ceneteno appears to have set out to write the *Funk and Wagnall* reference for spine terminology in an attempt to collect, in one volume, all of the linguistic terms that might remotely relevant to the diagnosis and treatment of spinal disorders. He mostly succeeds, but he does manage to leave out some important terms. With foresight, Dr Ceneteno does mention in the introduction that he perhaps overlooked a few words, but he promises to include them in future editions.

Is this book in any way relevant to neuroradiologists? Sure. Just ask Pierre Millet or any of his task force of representatives from the ASNR, American Society of Spine Radiology (ASSR), American Society of Neuroimaging (ASN), Congress of Neurological Surgeons (CNS), American Society of Orthopedics (ASO) and other societies who have just released a monumental white paper in which they codified and standardized the nomenclature and terminology for lumbar disk abnormalities (ie, bulge versus herniation and all that stuff). These physicians will be happy to tell you how easy that years-long process was.

As it turns out, Dr Ceneteno's definitions for disk abnormalities are fairly good, but they are not totally consistent with the published standardized terminology of the aforementioned multidisciplinary nomenclature group. The terms "slipped disc" and "prolapsed disc" are included, along with the more traditional "bulges," "protrusions," and "extrusions." The first two are mentioned in the dictionary, but they not recognized in the standardized nomenclature. The last three are identified, fairly accurately, as types of "herniations" in the dictionary; however, they are not clearly delineated from "herniated nucleus pulposus," as in the standard nomenclature. In all fairness, it should be pointed out that the dictionary likely went to press well before the results of the nomenclature task force were released. The author will probably correct these terms in the next edition, as promised.

The fact that the author omits the terms ASNR and ASSR but includes several orthopedic society acro-

nyms (eg, ASO) is not as easily forgiven, though. As if that were not enough for a radiologist to boycott the book, when one looks up ACR in this dictionary, one finds "American Society of Rheumatology," not American College of Radiology. It was also mildly disconcerting to find not one reference in this supposed comprehensive dictionary to Dr Michael Modic. Whereas the ever-humble Dr Modic might forgive this omission, surely the popular tendency to refer to degenerative changes in the vertebral body endplates as Modic types I-III deserves some mention.

This dictionary does contain some terms and topics that we, as neuroradiologists, probably have never seen before and that might prove helpful when we communicate with clinicians. Terms used in orthopedic spinal surgery, such as "pseudoarthrosis," are clarified, and a short discussion is offered by way of definition. Drugs useful in the treatment of back pain are well covered, and their discussions are easily accessible. Physical examination signs (eg, those with straight-leg raising or the flexion, abduction, and external rotation [FABER] test) are included. Physical therapy and rehabilitation terms are included, even many dealing with Workmen's Compensation analysis. Chiropractic terms, almost guaranteed to have never entered our lexicon, are included as well. Who knew what the Gonstead technique was?

Some complex concepts are fairly well explained in brief sections that are, for the most part, clear and concise. Some topics are not well addressed, but at least they are mentioned. For instance, facet joint anatomy and pathology are covered in one paragraph, as is the epidural space and the technique of epidural injection. Apparently, all that there is to know about MR imaging is explained in one, albeit fairly long, paragraph. Similarly, CT scanning is discussed in a paragraph. If these are comprehensive, what have we been doing with ourselves all these years, anyway?

Overall, this book represents a valiant attempt to include all that there is to know about the spine within one volume. It is more interesting than it originally appeared to be. The text is actually helpful, but some glaring omissions are noted. This book is probably worth having in the reading room where spine images are interpreted because it may help in improving communication with the referring physicians or, possibly, it could just help satisfy our curiosities, especially when we our own back pain acts up.