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## Pediatric Neuroimaging

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### Pediatric Neuroimaging

A. James Barkovich. 3rd ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2000. 880 pages, 1192 illustrations plus 36 tables. \$199.00.

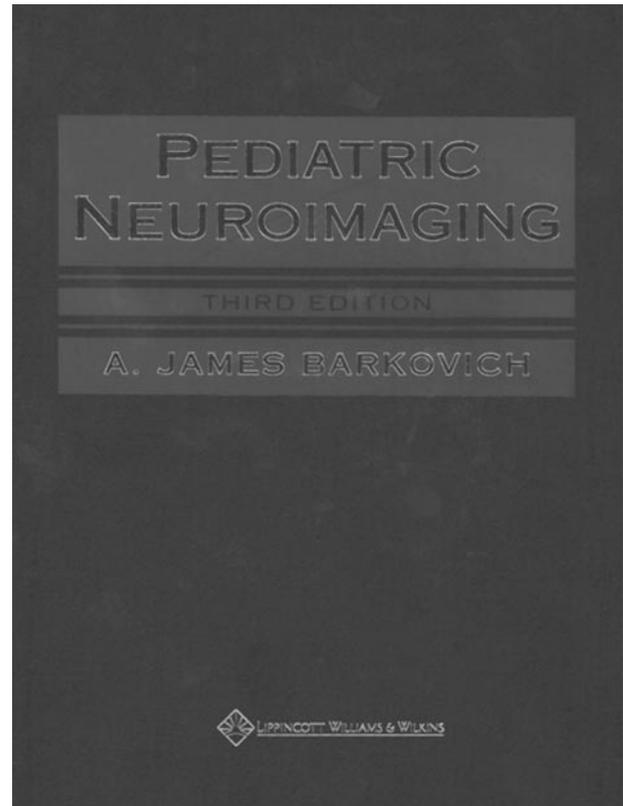
Dr. Barkovich and his co-authors bring to this volume their vast breadth of experience, keen insight into imaging the diseases of children, and formidable skills as writers and educators. They synthesize these into a balanced teaching text that starts gently and helps the reader to gain a deep understanding of the full spectrum of pediatric neuroimaging. It is simply superb.

The text is organized into 12 chapters, which address the following topics: 1) techniques for imaging the pediatric patient; 2) normal development of the CNS, skull, and spine; 3) toxic-metabolic disorders of the brain; 4) injuries to the brain and spine; 5) congenital malformations of the brain and skull; 6) phakomatoses; 7) tumors of the brain, skull, orbit, and neck; 8) hydrocephalus; 9) congenital malformations of the spine; 10) neoplasms of the spine; 11) infection; and 12) anomalies/endovascular therapy of the cerebral vasculature. Within each chapter, individual subsections provide highly readable, manageable reviews of each important entity.

The text is almost conversational in tone but very concisely delivers the core data regarding each subject. The numerous, carefully selected images and diagrams illustrate the significant features discussed in the text. Carefully written captions help the reader to see the pathologic abnormality displayed and the proper logical approach to analysis of the images. Well-selected references are cited in the text and placed at the end of each chapter to facilitate additional, detailed exploration of any subject of special interest.

The book has exceptional strength in its review of normal maturation of the CNS and will prove to be very helpful to physicians seeking to understand the changing appearance of normal at different ages. It is also especially strong in its coverage of congenital malformations of the brain. This large group of diverse anomalies can intimidate those who see few of them, unless, as here, the malformations are reviewed in a careful, helpful system that explains and characterizes each entity and then reinforces the teaching points with fine illustrations.

The book suffers very few production defects. Those that might be reviewed for future editions include orienting all the sagittal view illustrations to face in the same direction. Figure 5-112, for example, begins the discussion of the normal formation of the cerebellum, but Figure 5-113, which continues the discussion, suddenly faces in the opposite direction. Figures 5-24 through 5-27 are oriented with anterior to the reader's right, although most MR imaging studies are oriented with anterior to the reader's left. Easier transference to the reader would be possible if all the sagittal view images faced the left. In addition,



cropping the images symmetrically without cutting off the edges of the brain/skull and orienting all the illustrations with the midline vertical, rather than angled to one side, wherever asymmetry is not an intrinsic part of the disease would be improvements.

No volume can include everything, nor should it. I would like to have seen the authors use neuropathology specimens to illustrate the anatomic-pathologic bases for the imaging features of each disease and include greater numbers of ultrasonic images of these diseases. I would also have preferred that the authors cite the original sources of illustrations and diagrams in the legends to facilitate review of the source papers.

*Pediatric Neuroimaging* is a valuable teaching text that summarizes all the major aspects of neuroimaging of children. It belongs in the institutional, departmental, and personal libraries of all neuroimagers, and should be kept "on the desk" of the reading stations at all sites that image children. *Pediatric Neuroimaging* should be read—and then reviewed—by all residents, fellows, and junior staff in radiology, neurology, neurosurgery, neuropathology, and pediatrics for their initial education, for Board review, and for helping to correctly diagnose any neuropediatric cases studied in the department.