

### **Magnetic Resonance Imaging of the Pediatric Brain: An Anatomical Atlas.**

G. Salamon, Claude E. Raynaud, J. Regis, and C. Rumeau. Raven Press, New York, 1990. 350 pp. \$105.00.

These four French authors, with numerous other collaborators, have put together a book that continues a rich history of producing fine anatomic studies.

The title is somewhat misleading, establishing the risk of disappointment for those ordering the book; in that it is an atlas of magnetic resonance imaging of the brain after birth. Eighteen subjects were used in this compilation. Half of the subjects were under one year of age. These data are very useful to professionals who are trying to come to grips with the developing brain. The authors are astute in their discussion of the developing brain in terms of total or global development, rather than focusing only on degrees and levels of myelination.

However, this book is not easy to use. The material is presented in an orderly, but cumbersome, fashion. This may be a slightly unfair criticism because the brain is presented on succeeding pages at various ages in the axial plane at certain distances above the orbital-meatal plane in T1-weighted images. Unfortunately, in North America, the custom is usually to study the brain in proton-density and T2-weighted images, in the axial plane.

This book is valuable and can be recommended to all medical libraries. For the clinician who is willing to take some time to carefully study the material, real gains in understanding are possible. Note that it is probably appropriate to say that the "quick fix" in understanding the developing, post-partum brain is no more accessible than the holy grail.

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### **Radiology of the Liver, Biliary Tract, Pancreas and Spleen.**

Arnold C. Friedman, ed., Wilkins and Wilkins, Baltimore, 1987, 1110 pp, \$134.00.

This volume is another in Golden's diagnostic radiology series, which also in-

cludes Castañeda-Zuniga's book on interventional radiology and the nuclear medicine text by Gottschalk, Hoffer, Berger and Potchen. Published in 1987, this work is extremely well organized, concise, and well written. It includes a group of chapters dedicated to each of the four organ systems in the book's title, as well as a fifth entitled "Biopsy and Drainage Procedures in the Upper Abdomen." These organ-specific sections are introduced by appropriately detailed, readable chapters on the anatomy (both gross and radiologic), embryology, and histology of the four organs. Subsequent chapters include details about either specific disease processes (e.g., cholecystitis) or radiologic procedures (e.g., MRI) for each area. The chapters are amply illustrated by images of adequate quality.

Using a wide variety of radiographic modalities, this book does a very good job of listing typical radiographic findings for each organ and disease process discussed. Such sections typically proceed logically from plain films to more invasive procedures, such as angiography. Most of the text is, appropriately devoted to the use of ultrasound and computed tomography; this approach provides an excellent guide for either the imager or clinician without being rigidly algorithmic.

My criticisms of this book are primarily related to the date of publication, rather than failures on the part of the authors or editors. While published in 1987, this volume was three years in the making and few, if any, of the references are more recent than 1984. In addition, recent advances in hepatic and pancreatic imaging, including MRI and CT portography, which play an important role in imaging those organs in 1990, are mentioned in cursory fashion. Furthermore, many of the ultrasound images are presented in the black-on-white format of an earlier era, which detracts from their teaching value.

The scope of this text is broad and includes most of the abnormalities one might expect to see, even in a very busy practice. At the same time, this volume is clinically-oriented and the reader is not encumbered with a great deal of esoterica. This book would make an excellent reference for the practicing or

resident radiologist, but probably should be augmented by more detailed texts in major departmental libraries. It is probably too narrow in focus and too encyclopedic to be of great utility during preparation for oral board examinations.

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**MRI of the Musculoskeletal System, Second Edition.** Thomas H. Berquist, ed. Raven Press, New York, 1990, 545 pp, \$130.00.

This is the second edition of one of the early (1987) textbooks on MRI of the musculoskeletal system. It has been greatly expanded from 220 pages in a 6 x 9-inch format to 545 pages in an 8.5 x 11-inch format. The editor is author or coauthor of 10 of the 15 chapters, and there are seven other contributors, mostly from the Mayo Clinic.

The book begins with three introductory chapters on the basic physical principles of MRI, the physical basis for the interpretation of MR images, and general technical considerations in musculoskeletal MRI. A useful glossary of MRI terminology follows the first chapter. The next eight chapters concentrate on anatomic regions and cover the entire musculoskeletal system. Each of these chapters begins with a practical approach to patient positioning, coil selection, pulse sequences, and imaging planes. The imaging time for each recommended pulse sequence is indicated so that one can estimate examination times. A detailed description of the normal regional anatomy follows, complete with many line drawings and an atlas of normal MRI anatomy of the region in the standard imaging planes. Each MR image is clearly labeled and accompanied by a line drawing indicating the location of the slice. Following this are discussions of specific clinical applications. Most of the chapters also include a section alerting the reader to technical and interpretive pitfalls. For example, the chapter "Pelvis, Hips, and Thighs" opens with sections on technique, anat-

omy and pitfalls, and then covers osteonecrosis, transient osteoporosis or edema, trauma, neoplasms, arthropathies, infection, and pediatric disorders. The reference lists are extensive and current.

The final chapters of the book cover neoplasms, infection, diffuse marrow diseases, and miscellaneous conditions. There are extensive cross-references between chapters, eliminating some of the redundancy that the dual-anatomic and pathophysiologic organization engenders. The MR images have been obtained from modern instrumentation and are clearly reproduced and usefully labeled. Correlative radiographs, CT scans, angiograms, and radionuclide

bone scans are found throughout the book. The text is highly readable and errors are few. The discussions are well-rounded, pointing out not only MRI findings of various conditions, but also the anatomic, pathophysiologic, and physical bases for these findings. A useful subject index is found at the end.

In summary, this second edition of *MRI of the Musculoskeletal System* presents a practical and comprehensive approach to performing and interpreting musculoskeletal MRI examinations.

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## Books Received

**Appleton & Lange's Review for the Radiography Examination**, *D.A. Saia, Appleton & Lange, East Norwalk, CT, 246 pp, \$29.95.*

**MRI of the Brain II: Non-Neoplastic Disease**, *Michael Brandt-Zawadzki and William G. Bradley, Jr, eds, Raven Press, New York, 224 pp, \$60.00.*

**The Visible Human Body: An Atlas of Sectional Anatomy**, *Gunther von Hagens, Michael H. Ross, Lynn J. Romrell, and Klaus Tiedemann, Lea & Febiger, Malvern, PA, 151 pp, \$37.50.*

**The Discipline of Curiosity Science in the World**, *Janny Groen, Eefke Smit, and Juurd Eijvoogel, eds., Elsevier, New York, 156 pp, \$25.00.*

**Fluorine-18 Labeling of Radiopharmaceuticals**, *Michael R. Kilbourn, National Research Council, Washington, DC, 149 pp, (limited supply available free of charge).*

**Textbook of Radiopharmacy: Theory and Practice**, *Charles B. Sampson, Harwood Academic Publishers, New York, 388 pp, \$130.00 (hardcover) and \$40.00 (softcover).*

**Radiology Review Manual**, *Wolfgang Dahnert, Williams and Wilkins, York, PA, 583 pp, \$55.00.*

**Imaging of the Thyroid and Parathyroid Glands: A Practical Guide**, *Brian Eisenberg, ed., Churchill Livingstone, Chicago, 209 pp, \$59.95.*