Pediatric Chest Imaging: Chest Imaging in Infants and Children. Javier Lucaya MD and Janet L Strife MD, editors. (Medical Radiology Diagnostic Imaging Series, AL Baert and K Sartor, editors) Heidelberg, Germany: Springer-Verlag. 2002. Soft cover, illustrated, 306 pages, $86.21.

Advances in cross-sectional imaging techniques, particularly computed tomography (CT) and magnetic resonance imaging (MRI), have improved radiologists' ability to accurately diagnose and characterize disease. However, imaging children requires special attention to radiation exposure, for children are more sensitive to the biologic effects of ionizing radiation than are adults. Motion, a problem especially encountered in younger children, can degrade image quality. Rapid imaging techniques and occasionally sedation are required to obtain diagnostic quality images with these patients. Imaging the pediatric chest requires a sound knowledge of normal anatomy and pathologic conditions as well as familiarity with various imaging techniques to maximize diagnostic yield. Drs Lucaya and Strife and their coauthors have assembled an excellent text, which illustrates the gamut of pediatric chest disorders and describes in detail the various approaches to imaging the pediatric chest.

Pediatric Chest Imaging: Chest Imaging in Infants and Children demonstrates the radiographic manifestations of common disorders that affect the pediatric chest and provides the general or pediatric radiologist with up-to-date cross-sectional imaging techniques to evaluate these disorders. Topics range from thoracic ultrasound and high-resolution CT (HRCT) of the lung to airway disease and pulmonary malformations. Imaging protocols and sedation techniques derived from the authors' experiences are provided, making this text an excellent reference for radiologists who have limited experience imaging children.

This book is aimed primarily at radiologists, but pediatricians, pulmonologists, and surgeons may also find it of value, providing them with more understanding of the radiographic manifestations of the diseases they treat and guidance in choosing appropriate imaging studies. CT technologists, particularly those who have limited experience with pediatric patients, may find the information on imaging techniques quite useful, especially with regard to the objective of minimizing radiation dose. Other health care providers who wish to broaden their knowledge of pediatric chest disease will find this text full of pertinent detail, but without too much detail outside the scope of their clinical practice.

The book opens with a detailed chapter on ultrasound of the pediatric chest—a topic that is probably foreign to many radiologists in North America. The techniques are well described, with diagrams and high-quality images delineating normal anatomy and pathologies. Imaging pitfalls are also described and well-illustrated. As a radiologist without experience in pediatric thoracic ultrasound, I found this chapter quite instructive. The second chapter briefly discusses the limited role of scintigraphy in pediatric chest imaging, and specific uses of scintigraphy are discussed in other chapters, where appropriate.

The chapters on helical CT and HRCT are outstanding. The former provides in-depth coverage of helical CT techniques, such as CT angiography and image post-processing, and it also includes particulars of basic imaging protocols. The chapter text is accompanied by high-quality axial and postprocessed images that clearly illustrate the power of helical CT to portray normal anatomy and pathologic states. Additionally, the author is careful to remind the reader about the potential for high radiation dose with helical CT and provides guidance on methods to keep dose low while still obtaining adequate data to provide high-quality images. The chapter on HRCT is divided into 2 sections. The first addresses technique, indications, anatomy, and HRCT features of lung disease, and the second focuses on clinical applications. The images in this chapter are of particularly high quality and demonstrate the detail provided by HRCT technique. This chapter was one of the better introductions to HRCT terminology I have encountered.

The disease- and organ-specific chapters are also well written. The dedicated chapter on the thymus, an organ that seldom receives a lot of attention, covers development, structure and function, and normal and pathologic appearances. There are numerous images in this chapter, including plain radiographs, CT, MRI, ultrasound, and scintigraphy images, demonstrating the numerous physiologic and pathologic states of the thymus. The chapters on pediatric tuberculosis, the pulmonary manifestations of acquired immune deficiency syndrome (AIDS), and chest tumors other than lymphoma cover epidemiological, clinical, and radiographic manifestations of their respective diseases, rendering them appealing to a broad audience. The text closes with a chapter on cardiac MRI, a field in its infancy and one that has great potential to change the way functional and structural heart disease is evaluated. However, the techniques described are limited to the author's experience with a single vendor, and there are few MR images of cardiac disease.

In any multiple-author text redundancy can pose an editorial problem. **Pediatric Chest Imaging: Chest Imaging in Infants and Children** has a lot of content overlap with regard to imaging techniques and sedation. In particular, description of CT technique as applied to the pediatric chest appears over and over again in the book: first in the initial technique-oriented chapters and then scattered throughout the chapters on individual diseases or disease groups. Sedation is covered in both dedicated CT chapters and in the chapter on cardiac MRI. Perhaps a single chapter on sedation and immobilization techniques would better serve the reader. For the reader using this text as a reference the logic in this layout makes sense, but when reading the text to acquire or refresh general knowledge of pediatric chest imaging, the redundancy is unnecessary.

For an imaging text to meet its intended goal, a generous number of high-quality images must be provided. The editors of this book understood that necessity, commenting in their preface, "We believe that the extensive collection of figures will be of great value to the reader." Indeed, the images in **Pediatric Chest Imaging: Chest Imaging in Infants and Children** are plentiful and are of excellent quality, with the findings of interest clearly delineated in the detailed figure legends. However, a few of the chest radiographs, particularly in the chapter on pulmonary manifestations of AIDS, did not reproduce well and require some imagination to appreciate the described findings.

The book could have been better organized, perhaps with one section focusing on imaging techniques and the other on disease, rather than 4 dedicated technique chapters, one of which concludes the book, and repetitive description of techniques in

disease-focused chapters. I question the categorizing of lymphocytic interstitial pneumonia and pulmonary lymphoid hyperplasia under the infection heading of the chapter on AIDS. These 2 topics better fit under their own subheading of lymphoproliferative disorders. I also found the organization of the chapter on lymphoma difficult to follow, with various imaging modalities appearing under multiple subject headings.

The book's soft cover and small profile make it easy to slip into a briefcase or bookshelf. The typeface and 2-column layout are pleasing to the eye, making it easy to read in most lighting situations, including a darkened radiology reading room. In addition to an index at the end of the book, each chapter has a table of contents, with individual subtopics delineated by numbers and a boldface section title, a feature that allows for quick, focused reading. References are included at the end of each chapter, are plentiful in number and up to date, reflecting the thoroughness and scientific value of the facts presented in the text.

The only shortcoming of the physical appearance of the text is that references in the body of the chapter are printed as the author name(s) in capital letters and year, which disrupts the flow and appearance of the text. I find that the more common style of numbering references in the text and including a numbered reference list at the end of the chapter makes for a smoother read. A few typographical errors are scattered throughout the book, none of which interferes with the conveyance of information.

In summary, **Pediatric Chest Imaging: Chest Imaging in Infants and Children** is a thorough review of current cross-sectional techniques employed in imaging the pediatric chest, and it provides in-depth coverage of individual diseases for the practicing radiologist. The text is well written and numerous high-quality images are provided. Moreover, this book can serve as an appropriate reference for pediatricians, pulmonologists, surgeons, and others who treat children suffering diseases of the chest.

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Diseases of the Lung: Radiologic and Pathologic Correlations. Nestor L Müller MD PhD, Richard S Fraser MD CM, Kyung Soo Lee MD PhD, and Takeshi Johkoh MD PhD. Philadelphia: Lippincott Williams & Wilkins. 2003. Hard cover, illustrated, 387 pages, $145.

This book is superb. The first author, Dr Müller, speaks publicly in a crisp, clear, and succinct manner, and in this book he and his colleagues present radiologic and pathologic diseases of the lung in a similar manner. **Diseases of the Lung: Radiologic and Pathologic Correlations** examines the common pathology and radiology findings of many pulmonary diseases. The chapters focus on a wide variety of topics, including infection, interstitial pneumonia, congenital abnormalities, emphysema, drug-induced lung disease, and others.

The intended readership includes "residents, fellows, and practitioners in radiology, pathology, thoracic surgery, and respiratory medicine." However, the book is a great reference for nurses, respiratory therapists, and technicians who want to further their knowledge of respiratory diseases. In our institution many of the respiratory therapists do daily radiology rounds. This book offers classic radiologic findings seen in many pulmonary diseases. The pathologic correlations are probably less useful for nurses and respiratory therapists, as their exposure to pathology specimens and slides is limited.

The brief disease descriptions that accompany the images are accurate, clear, and succinct. The chapters are well organized and the chapter topics are well selected. The majority of the book is dedicated to beautiful pictures of pathology specimens (both gross and microscopic), chest radiographs, and high-resolution computed tomography images. The references are recent and from diverse sources.

My criticisms of this book are few. One is that some of the figures are not on the same page as their related text, and one can easily be fooled into thinking that the text near a given figure describes that figure. One example of this is in Chapter 4, "Lymphoproliferative Disorders and Leukemia": follicular bronchiolitis is discussed on page 98, but the associated figure is on page 100.

Though the vast majority of images, both pathologic and radiologic, are excellent, a few poor-quality and lesser-quality images were included. Examples are Figure 20.31, which shows aspiration bronchiolitis, Figure 18.7, which shows mosaic perfusion in pulmonary arterial hypertension, and Figure 19.7, which shows Wegener granulomatosis.

This text is an excellent reference for physicians, nurses, and respiratory therapists. It is succinctly written and diseases are presented in a logical order. The various radiologic presentations of individual diseases are discussed, often in the order of which presentation is most common. The index is well done, so that topics of interest are easily found. I strongly recommend **Diseases of the Lung: Radiologic and Pathologic Correlations** to anyone who wants a reference for common radiologic and pathologic presentations of pulmonary disease.

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Color Atlas of Pulmonary Cytopathology. Sudha R Kini MD. New York: Springer-Verlag. 2002. Hard cover, illustrated, 301 pages, $199.

Sudha Kini deserves to be loudly applauded for her **Color Atlas of Pulmonary Cytopathology**. This single-author work encompasses the vast majority of situations in which diagnostic cytology of the respiratory tract has a clinical role and includes numerous benign and malignant entities, encompassing diverse scenarios, and involving patients of all ages, including neonates and young children—a group commonly ignored by many writers. This text-atlas clearly fills a void for those who need an extensive and authoritative source on pulmonary cytopathology, as no such text has been published in at least a decade. This book may very well appeal to pulmonary physicians who have a keen interest in the morphologies associated with disease processes, but the major audience will be practicing pathologists, pathology house officers, practicing cytotechnologists, and cytotechnology students.

The text is extremely well organized and each chapter is well written overall. The author provides clinical, radiographic, gross pathologic, and histologic attributes of many disease entities before venturing into the cytologic criteria of a given disease. For the most part these criteria are clearly delineated,