Book Reviews

Molecular Medicine: Novel Findings of Gene Diagnosis, Regulation of Gene Expression, and Gene Therapy, 1999

Edited by I. Hashimoto, H. Shinkawa, T. Suda, S. Tsuchida, S. Yagihashi and J. Uitto. Available from Elsevier Science BV, P.O. Box 211, 1000 AE Amsterdam, The Netherlands, or from Elsevier Science Inc., P.O. Box 945, Madison Square Station, New York, NY 10160-0757, USA. Price: US$139.50. ISBN: 0-444-50006-5.

This book is based on the proceedings of the second meeting of the Hirosaki International Forum of Medical Science held in Hirosaki, Japan, in July 1998. The forum was inspired by the contribution of molecular genetics over the past decade to the explosion of knowledge of the genetic basis of many diseases. The compilation articles in the book describe advances in the diagnosis and treatment of these diseases and collectively define the field of molecular medicine. Some 27 articles cover a wide area of medicine, encompassing the molecular pathology of diseases involving skin, sensorineural, immune and other organ systems.

The book is divided into three sections dealing with molecular diagnostics, gene expression and gene therapy. The articles dealing with the molecular basis and diagnosis of disease are highly focused and directed to readers with specific rather than general interests. The areas covered include cutaneous basement membrane disorders such as epidermolysis bullosa, hearing disorders, retinal degeneration, angiotensin-converting enzyme polymorphisms in lupus nephritis and the genetic basis of drug response. The section on gene expression contains impressive articles, again directed at readers with specific interests. The articles deal with receptor-ligand triggered gene expression, response to drugs, transcription factor activity and cytokine responses related to neoplasia and infection. The section on gene therapy is of more general interest. Although the articles deal with the introduction of cytokine genes into keratinocytes, readers will gain useful insight into the targeted delivery and expression of genes.

My overall impression of this book is that it offers a compilation of high-standard reviews and original research in specific areas. It is an excellent reference book for a library, but is not attractive for a personal collection because the articles address very specific subjects in diverse disciplines.

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Surgical Pathology of the Ovaries, Second Edition

Edited by P. Russell and P. Farnworth. Available from Harcourt Brace & Co. Ltd., Foot's Cray High Street, Sidcup, Kent, U.K. Price: £140.00. ISBN: 0-4430-5384-7.

This is a well-designed book that provides a comprehensive review of ovarian pathology. The book's main objective was to provide most of what the pathologist needs to know about diverse ovarian diseases in a clear and well-organized manner. Unlike other books that are devoted either to ovarian tumors or other ovarian diseases, this book covers both of these subjects.

The book is composed of ten sections. The first section deals with basic information on ovarian pathology such as embryology, normal anatomy and histology of the ovary, in addition to detailed description of pathological handling of ovarian specimens. This sets the stage for the sections that follow, which cover all aspects of ovarian pathology and include developmental, inflammatory lesions and neoplasms. Several sections are devoted to an in-depth discussion of various neoplasms. The authors have attempted in these chapters to give the reader detailed exposure to different tumors, with emphasis on clinicopathological features, criteria for diagnosis, differential diagnoses, and when applicable, prognostic and genetic biomarkers specific to those tumors. These chapters are supplemented by numerous images, illustrations and tables that complement the text.

Overall, the book is clear, concise and logical in its layout, with many up-to-date references. I found the book very useful and believe it will be of tremendous value to residents and pathologists who are interested in gynecological pathology, as well as gynecologists who have to deal with ovarian diseases on a daily basis.

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Chest Radiology: The Essentials

Edited by Jannette Collins and Eric Stern. Available from Lippincott Williams and Wilkins, 1999. P.O. Box 1640, Hagerstown, MD 21741-1640, USA. Price: US$79. ISBN: 0-7817-1582-2.

This book is based on a highly successful review course on chest radiology given by the authors. The contents of the course have been updated, enlarged and refined in this current book form. The hard-bound book has been

organized into 18 chapters. The first two chapters provide an overview of the normal chest anatomy through line drawings superimposed on radiographs and richly labeled computed tomography (CT) images. This method of teaching is time tested and effective. This reviewer also uses the superimposition method with success in teaching medical students and junior residents. In describing the radiographic signs in "Chest Radiology" (Chapter 2), the authors have generously illustrated the contents by plain radiographs with CT correlation. But there are no slides for pathological correlation. The body of the book (chapters 3 through 13) describes disease pattern by anatomical location of the pathology, for example, CT and plain radiographic appearance of interstitial and alveolar lung disease, mediastinal and pleural pathology and other similar classifications. Chapter 14 deals with the analysis of a radiographic sign of unilateral hyperlucent lung, a commonly encountered radiographic problem. The important topics of neoplasms of the lung and disease pattern in immunocompromised patients are dealt with in separate chapters towards the end. Chapter 18 provides well-illustrated radiographs and CT scans for self-assessment review. The radiological illustrations are of very high quality.

Learning objectives are enumerated at the beginning of every chapter, which will certainly help students, radiology residents, as well as clinicians to focus on relevant information. This book, as the authors concede, cannot be considered a source of reference in chest radiology, but it certainly fulfills the intended objective of providing the essentials of the subject. Medical students, residents, fellows, and even junior staff should find it a valuable source of relevant and reliable information. Stress has been laid on the understanding of the pathogenesis of the radiological findings rather than mere knowledge of facts in chest imaging.

The absence of magnetic resonance (MR) illustrations seems to be intentional, as the majority of MR applications relate to the cardiovascular system and are not essential in the diagnosis of the diseases of the lungs and bronchi. Magnetic resonance imaging seems to be outside the scope of this book, however, a few MR images are included in chapter 17, where a brief discussion of the imaging of the cardiovascular system is presented.

Both authors completed the Figley Fellowship in Radiology Journalism and have extensive teaching and publishing experience. One of the authors (JC) also has a Master's Degree in Education. The authors' teaching experience is reflected in the style and the organization of the book. The language used is simple and the description of the chapters revolves around the learning objective. References are made to relevant articles at the end of each chapter. The gamut of differential diagnoses is provided in easy-to-remember tables of acronyms. My favorite is CHIHUAHUAH for the 10 causes of pulmonary edema with a normal heart size!

Each chapter deals with the practical aspect of its topic. Some of the best chapters include interstitial and alveolar lung disease and monitoring and support devices, i.e., tubes and lines. *Chest Radiology: The Essentials* should be part of all Department of Radiology and Department of Medicine libraries, especially in departments that are involved in teaching residents.

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Pediatric Neuro-Imaging, 3rd Edition

James Barkovich. Available from Lippincott Williams and Wilkins, P.O. Box 1640, Hagerstown, MD 21741-1640, USA. Price: US$175.00. ISBN: 0-7817-1740-X.

This is the long awaited 3rd edition of the book *Pediatric Neuro-imaging*, and is certainly good news for all those who deal with pediatric neuro-imaging on a daily basis. To underline the validity of the above statement, I must admit that this is certainly the most frequently used reference book in my own practice.

The 3rd edition of the book is a thoroughly revised and generously extended upgrade of the previous edition which was published five years age. Progress, however, in the technical aspects of pediatric neuro-imaging and in particular in the understanding and management of the pathological processes typically encountered in neonates, infants and children, fully justify the new edition.

The book is exceptionally richly illustrated. Magnetic resonance imaging accounts for most of the figures but the book is also remarkable for its well-balanced use of other imaging modalities, such as ultrasound and computed tomography whenever relevant (neonatal brain injury and orbital pathologies, for example).

As one might expect from a grand classic, the basic structure of the book has not been changed, The first chapter deals with the practical aspects (patient preparation, sedation protocols, imaging methods and techniques) of pediatric neuro-imaging. The author is known to have done groundbreaking work in the field of the description of the normal postnatal myelination process, and the second chapter provides an excellent synopsis of what is known in this domain to date. The chapter is now complete with previously missing diffusion-weighted imaging and proton MR spectroscopic data of the developing brain. The third chapter has been almost doubled compared to the previous edition, and provides valuable information on the difficult subject of toxic and metabolic brain disorders. Chapter 4,

on the destructive processes of the central nervous system, now covers not only the brain but the spine as well. Perinatal hypoxemia is particularly extensively discussed, which is in keeping with the tremendous progress made in this area over the past few years. Congenital malformation of the brain (Chapter 5) and the spine (Chapter 9) could almost stand alone as references in their domain, reflecting the special interest and exceptional competence of the author in these areas. Thanks to the didactic structure, the clarity of explanation, excellent illustrations (high-quality images and drawings), well-organized tables and a particularly exhaustive reference list, after reading these chapters, it all becomes really clear. The reader who is not familiar with phakomatoses will appreciate the well-structured overview (Chapter 6) on these relatively rare but important pathologies. Intracranial, orbital and neck tumors are dealt with in great detail in Chapter 7 and spine neoplasms in Chapter 10. The considerable personal experience and crystallized knowledge the author has in these common pathologies is evident. Hydrocephalus is a special and frequent problem in neuro-imaging management of children. Despite the etiological diversities behind "hydrocephalus" as an epiphenomenon, the author must be congratulated for devoting a separate chapter (Chapter 8) to this subject. This allows for detailed discussion of the pathophysiological, clinical, radiological and therapeutic aspects of this complex, multidisciplinary problem.

Infections of the nervous system (Chapter 11) is a relatively short, but adequately informative chapter. In keeping with current trends, vascular anomalies of the brain and spine are presented (Chapter 12), with a therapy-oriented approach and great emphasis on recent progress in endovascular treatment options.

The reviewer finds it difficult to criticize any of the superb work done on the book. Nevertheless, the "weakest" chapters are probably Toxic and Metabolic Brain Disorders (Chapter 3) and Anomalies of Cerebral Vasculature, Diagnostic and Endovascular Consideration (Chapter 12). Fortunately for those who are specifically interested in either subjects, two other excellent monographs are available on the same topics (Van der Knaap SM and Valk J, *Magnetic Resonance Imaging of Myelin, Myelination and Myelin Disorders* and Lasjaunias P, *Vascular Disease in Neonates, Infants and Children: Interventional Neuroradiological Management)*. These books provide all the missing information that the very demanding neuroradiologist or clinician might occasionally need.

The "Barkovich," as it is simply referred to in the neuroradiological community, is an almost unrivalled masterpiece. No wonder it has only one standing competitor (Ball SW, *Pediatric Neuroradiology*). However, while *Pediatric Neuro-imaging* was written practically single-handedly, *Pediatric Neuroradiology* is a multicontributory team effort. Comparison between the two books clearly demonstrates the strength of a single author book by its coherence and the presence of a personal touch throughout the entire text.

Pediatric Neuro-imaging is a must not only for all neuroradiologists but pediatric neurologists and neurosurgeons as well. It is perhaps the best available source of information on common and rare pediatric neuro-imaging problems for residents and fellows in radiology and neuroscience, and this may be the most frequently used reference for the general radiologist occasionally facing pediatric neuroradiological challenges in routine radiological practice.

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