BOOK REVIEW

Michael Riccabona: Pediatric Imaging Essentials—Radiography, Ultrasound, CT, and MRI in Neonates and Children

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Manuela Amato · Luigi Mansi

This book is an authorized translation of the German edition published in 2010 by Georg Thieme, which is presenting in this way the English version. The editor is Michael Riccabona, Professor at the Department of Pediatric Radiology at the University of Graz. He is a recognized international expert in the field, having experience in both traditional and newer radiological procedures.

The publication offers a broad overview of radiologic pediatric imaging, analyzing methods used in major diseases. Between the goals of the author, there is no space for evaluating the role of nuclear medicine; that would, therefore, be better derived from other publications.

The book, consisting of 364 pages, is divided into 9 chapters and contains more than 600 high-quality images. The first chapter introduces the main diagnostic methods for children such as radiography, fluoroscopy, ultrasounds, CT, and MRI, describing the advantages and disadvantages for each of them while also considering the use of contrast medium. There is particular attention paid to pediatric risks, emphasizing the importance of radiation protection in the child who, compared to the adult, has a greater risk of radiation-related carcinogenesis. Safety protection measures in children are described utilizing the ALARA principle (As Low As Reasonably Achievable) of radiation exposure.

Subsequent chapters describe specific pediatric diseases of systems such as chest, gastrointestinal tract, urinary tract, musculoskeletal system, traumatic pathology, oncological diseases, and finally, metabolic disorders. Each chapter begins by listing the main indications for each given device, therefore individuating how to use the various diagnostic methods in all pathological conditions. The clinical indication is followed by a brief description of the technical execution of the exam.

In each chapter, malformations and functional, inflammatory, and oncological diseases of each system are summarized and treated following a pattern that includes the definition of the disease, the most common causes, clinical features, imaging findings, differential diagnosis and associated syndromes. At the end of each chapter, there are clinical cases, with related images, explaining how to arrive at the final diagnosis.

In conclusion this book is very clear and easy to read and contains guidelines and key points for pediatric imaging. It provides a lot of information about the anatomy and physiology of children; then allows a fundamental understanding of imaging in infants and children as compared to adults. The presence of clinical cases from which to draw valuable information and insights is particularly interesting. Therefore, it can be a valuable tool for all specialists such as radiologists, pediatricians, and pediatric surgeons. Of course, being that nuclear medicine was not evaluated in the book, this could be intended as a partial limitation for nuclear physicians. Conversely, in our opinion, this volume is very useful for professionals and residents working in nuclear medicine. In fact the deep and wide description and analysis of the field as seen by an expert radiologist could be very helpful to better understand the scenarios where our discipline could find a clinical interest, starting from PET, but also including older yet clinically relevant procedures.

M. Amato · L. Mansi (✉)
Second University of Naples, Naples, Italy
e-mail: luigi.mansi@unina2.it