MRI has transformed the field of pediatric and adolescent musculoskeletal imaging. When the more senior (and gray haired) of the two authors completed his pediatric radiology training, orthopedic radiology was a primarily plain film based discipline, occasionally supplemented by arthrogram. Although much could be gleaned from the humble radiograph regarding the nature of orthopedic disorders, MRI has provided elegant depictions and insights of classic pediatric entities that would surely amaze the likes of John Caffey and Edward Neuhauser. With this technique, new challenges have arisen to comprehend the imaging findings in these classic disorders, and a wide array of newly appreciated entities has emerged with the wide utilization of MRI by pediatric, orthopedic and sports medicine specialists.

Despite these developments, a textbook devoted to MRI of pediatric and adolescent musculoskeletal diseases has been unavailable. Those with an interest in this area have had to rely upon published articles, as well as orthopedic, musculoskeletal and pediatric radiology texts. The goal of this work is to bring the literature of musculoskeletal MRI in children and adolescents together in an authoritative, but user friendly format. Cases are presented as “unknowns” in an effort to provide a dynamic learning process. The reader is given a brief history and initial images. A description of findings with appropriate annotated images and supplementary images follows. The diagnosis is then revealed and a discussion ensues. The discussion attempts to cover the salient features of the entity with related cases where appropriate. A differential diagnosis is given and, where appropriate, additional examples are illustrated. The result is a text that contains 315 pediatric and adolescent musculoskeletal MRI cases presented within the context of 102 unknowns.

To place this material more squarely in a clinical context, the authors invited two clinicians, Mininder Kocher, MD, MPH, a pediatric sports medicine orthopedic surgeon, and Mark Gebhardt, MD, a pediatric orthopedic oncologist, to join the effort. Sections entitled “Orthopedist’s Perspective” and “What the Clinician Needs to Know” are provided to inform the radiologist about the important clinical issues and what information is required to plan a management strategy. A modest bibliography for each case guides the reader to further discussions in original articles, reviews and other texts. The authors hope that this unique combination of both the radiologic and orthopedic points of view will enrich the readers’ learning experience and provide useful relevant information for the referring clinician.

Although the authors have sought to provide a solid and current presentation of both common and, where appropriate, unusual entities, space considerations have required exclusion of other entities. Like most first efforts, it is likely that this book will grow in scope and will undergo refinements in future editions, but for the present, we hope that this will be a useful instructional tool and reference source for radiologists and clinicians interested in pediatric and adolescent musculoskeletal disorders.

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