

Letter From the Guest Editors



This issue, and a subsequent one which will be published in 2021, are entirely devoted to “Pearls and Pitfalls in Pediatric Imaging.”

This issue begins with an article on abusive head trauma, the leading cause of fatal head injuries in infants. Dr. Blumfield, from the Children’s Hospital of Montefiore, in the Bronx, NY, discusses, elucidates, and exquisitely illustrates the imaging spectrum of injuries in this setting.

In the pediatric age group, thyroid imaging is mainly performed for the evaluation of congenital hypothyroidism, diffuse thyroid enlargement, and thyroid nodules. Dr. Silva from Yale University School of Medicine, in New Haven, CT, describes and finely depicts the clinical and imaging features of various entities one may encounter in the pediatric thyroid in the second article of this issue.

Dr. Otero and colleagues from the Children’s Hospital of Philadelphia in Pennsylvania author the third article. Their review discusses the acquisition, postprocessing, and thoracic applications of dual-energy computed tomography with a focus on pulmonary blood volumes as a surrogate for perfusion imaging. This is followed by a comprehensive, well-illustrated review from Dr. Biko et al, also from the Children’s Hospital of Philadelphia, on imaging of the normal anatomy and complications of the Fontan palliation.

The following two articles in this issue are two multi-institutional, fascinating pictorial reviews on MRI of metabolic liver abnormalities and MR enterography in pediatric patients orchestrated by Dr. Michael Gee from the Massachusetts General Hospital, in Boston, MA. In their first article, the authors illustrate the various MRI-based quantitative techniques for assessing liver fat, iron, and fibrosis in metabolic liver disease evaluation. While in their second article, the authors stress the importance of the technical considerations in the optimal performance of MR enterography in children.

The correct interpretation of normal and abnormal bone marrow on MR imaging in the maturing skeleton requires the recognition and understanding of the expected

distribution of red and yellow marrow at various ages, as these changes evolve with age in a predictable sequence. Dr. Chauvin and her associates from the Penn State Milton S. Hershey Medical Center, in Hershey, PA, skillfully describe and illustrate the appearance of normal and abnormal bone marrow processes in the maturing skeleton.

Dr. Meyers, from the Cincinnati Children’s Hospital Medical Center, in Cincinnati, OH, along with several co-authors from the Nemours Children’s Hospital in Orlando, FL, review classic and newer MR features of osteoid osteoma and mimickers that are beautifully illustrated emphasizing the findings that allow precise diagnosis and differentiation among similar conditions.

Next is a well-illustrated article on the imaging of soft-tissue masses in children from Dr. Navarro of the Hospital for Sick Children, in Toronto, Canada. The author reviews many of these conditions and focuses on the use of US and MRI for their evaluation, which are considered as first- and second-line imaging modalities respectively. While many of these lesions exhibit nonspecific imaging findings, there are some key imaging clues that when applied in conjunction with the clinical information help narrow the differential and may allow for a specific diagnosis.

Last, but certainly not least, the closing article is a comprehensive review of the pearls and pitfalls radiologists may encounter while performing hip ultrasound for the assessment of developmental dysplasia of the hip. The article is authored by Drs. Leslie Grissom and Ted Harcke, from A.I. DuPont hospital for Children; authors who are considered the originators of the dynamic hip ultrasound technique. In this practical review, the authors highlight the anatomic features and discuss and wonderfully illustrate the optimal hip ultrasound technique that will eliminate common errors and improve accuracy.

We extend our appreciation and gratefulness to all the authors, who have contributed not only their time and expertise but also a most valuable collection of images of these

pediatric imaging pearls and pitfalls. We trust these reviews will prove to be useful and valuable references in daily practice for general and pediatric radiologists worldwide. It has been a true pleasure and honor to serve as Guest Editors for this issue of Seminars in Ultrasound, CT, and MRI. We would like to thank Dr. Gayer for the kind invitation and faith in us to oversee the development and editing of this issue.

Monica Epelman, MD

Daniel J. Podberesky, MD

Guest Editors

University of Central Florida, Department of Medical Imaging/

Radiology, Nemours Children's Health System/

Nemours Children's Hospital, Orlando, FL

E-mail address: Monica.Epelman@nemours.org

(M. Epelman).