



Pediatric Nephrology

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In this issue of *Pediatric Annals*, we present five of the most encountered nephrology conditions in general pediatric practice. Hypertension, which is becoming increasingly diagnosed in children and tied to the obesity epidemic, is currently faced by pediatricians almost daily.

Although the incidence of primary hypertension in children has increased, an important task of the pediatric practitioner is to rule out causes of secondary hypertension, some of which may lead to devastating consequences if left untreated. In the article, “Hypertension in Children and Adolescents: A Review of Recent Guidelines,” Drs. Sahar Siddiqui and Rossana Malatesta-Muncher summarize the importance of accurate diagnosis, appropriate evaluation, and initial management of high blood pressures in children. The article also highlights, for the pediatric primary care provider, the most recent American Academy of Pediatrics (AAP) clinical practice guidelines for hypertension in children.

The importance of evaluation, referral, and treatment of hypertension in children is further highlighted in the article, “Pediatric Hypertension and End-Stage Renal Disease,” by Drs. Karyn Gerstle, Shireen Hashmat, Christopher Clardy, and Joseph R. Hageman. This article, which presents an illustrative

case of a child who was found to have end-stage renal disease after being evaluated for stage 2 hypertension, stresses the importance of prompt attention to elevated blood pressure in children.

Another renal condition on the rise in children, also associated with poor dietary habits, is nephrolithiasis. The increasing prevalence of renal stones may be partially explained by improved diagnostic methods, but more importantly so by the change in dietary patterns of the last few decades. The article, “Pediatric Nephrolithiasis: Risk Factors, Evaluation, and Prevention,” by Dr. Sermin A. Saadeh discusses the linkage of current dietary practices to metabolic and genetic risk factors for the formation of renal stones in children and adolescents. This article will guide the pediatric provider to the initial management of these patients as well as provide the basis for the role of dietary counseling.

Although a urinalysis is no longer recommended by the AAP as part of the well-child examination, many pediatricians continue to check the results of a urinary dipstick every year. As renal disease is often asymptomatic or may present with very subtle or nonspecific signs and symptoms, the urine dipstick can be a valuable tool in the diagnosis of kidney disease, especially because it is inexpensive and easy to do in the pediatric office

setting. Often, the urinary dipstick in an asymptomatic healthy child shows blood and/or protein, or blood/protein is found in the urine as part of the evaluation of a specific symptom such as abdominal pain. Some of these patients will require an extensive evaluation and referral to a pediatric nephrologist, whereas others can only be monitored without further investigations. The article, “Proteinuria in Children,” by Dr. Daniel Ranch guides the clinician in the approach to the evaluation and management of these patients.

When blood and protein are present in the urine at the same time it may indicate acute glomerulonephritis. Postinfectious glomerulonephritis continues to be the most common cause of glomerulonephritis in children, and although in the past it was mainly associated with streptococcal infection, we now know that it may occur secondary to infections with many other infectious agents. The article, “Postinfectious Glomerulonephritis,” by Drs. Dunya Mohammad and Rossana Baracco reviews this condition, including an illustration to aid in the differential diagnosis of acute glomerulonephritis in children.

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About the Guest Editors

Rossana Baracco, MD, earned her medical degree from the Universidad Peruana Cayetano Heredia in Lima, Peru. She completed her pediatric residency training followed by a pediatric nephrology fellowship at the Children's Hospital of Michigan in Detroit, MI. Her clinical research has focused on hypertension and chronic kidney disease. Dr. Baracco's clinical care includes in-hospital service on the pediatric floors and intensive care units, as well as outpatient care of patients with a variety of renal conditions. She also participates in the care of patients in the pediatric dialysis program. Dr. Baracco is the Associate Program Director for the pediatric nephrology fellowship program and serves on multiple education-related committees for both the residency and fellowship programs of Children's Hospital of Michigan.

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Dr. Kamat has been honored with "Teacher of the Year" awards by medical students and residents on multiple occasions. In 2010, he received the "National American Academy of Pediatrics (AAP) Education Award." Dr. Kamat has authored and co-authored over 200 peer-reviewed manuscripts, review articles, book chapters, and case reports. He has edited five books for the AAP. Currently, he serves as the editor-in-chief of AAP's Pediatric Care Online. He serves on the editorial board of many journals. Dr. Kamat was a member of the Pediatric Review Committee of the Accreditation Council for Graduate Medical Education (ACGME) from July 2011 through June 2017 and served as the Vice Chair of that committee during the last 2 years of his tenure with ACGME.

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