



Preface
Advances in renal imaging



Philip J. Kenney, MD
Guest Editor

Upon being invited to edit an issue of the *Radiologic Clinics of North America* on renal imaging, it was my intention to produce a work that not only presented the current state-of-the-art but also gave a glimpse of the future. With contributions from excellent clinician/scientist radiologists, I believe those goals have been met.

It is striking how much of this issue is devoted to CT and MR imaging in various forms, with some ultrasound. Technical advances, particularly multi-detector row CT, have had a major impact on the evaluation of renal disorders. Today, CT and MR imaging have, to a great degree, replaced “standard” intravenous urography. Several of the sections in this issue are technically oriented, especially those from Drs. Lockhart and Smith, Drs. Zhang, Pedrosa, and Rofsky, and Drs. Huang and Lee, as well as Drs. Kawashima, Glockner, and King and Drs. Hartman, Kawashima, and King. Technical developments in CT and MR imaging now allow for excellent diagnostic capabilities for renal disorders, but detailed specifics of the technique related to the disorder being sought must be understood to attain high accuracy.

Two sections, those on renal trauma by Dr. Smith and urinary lithiasis by Dr. Kenney, could be considered state-of-the-art presentations in which CT has clearly demonstrated its primacy, now considered the “one and only” in these circumstances. Although some controversies remain in these areas, and understanding of correct technique remains important,

there is little debate about which study to perform. In some other areas, the authors properly include more discussion on the advantages and disadvantages of different methods, commonly CT versus MR imaging, as well as important discussion as to who should be evaluated. These relate particularly to evaluation of hypertension in the adult by Drs. Hartman, Kawashima, and King and in the pediatric population by Drs. Roth, Spottswood, Chan, and Roth, and the evaluation of hematuria included in the presentation of CT urography and MR urography by Drs. Kawashima, Glockner, and King.

While in truth all of the contributors offer some glimpse of the future, many of the sections concentrate on the techniques whereby state-of-the-art cross-sectional imaging methods can replace and surpass the radiographic technology (intravenous urography and catheter angiography) of the past. However, the discussions of MR imaging of renal function by Drs. Huang and Lee, and renal imaging with ultrasound contrast present techniques whereby previously available technology can be used to derive new information. Combination of anatomic and functional information can lead to new uses of imaging.

Finally, although many of the sections deal with diagnosis of the renal mass (and properly so, considering this is a common problem), several sections expand the perspective. It is not enough for the radiologist today to understand technique and interpretation for accurate diagnosis; one must also have some understanding of

the basic principles of the disease, including genetics, as well as the treatment options. In contributions from Drs. Choyke, Zagoria, and El-Galley, a deeper understanding is provided of the various diseases called renal carcinoma, and of the wide variety of treatment options now available, whether provided directly by a radiologist or by urologic surgeons.

Philip J. Kenney, MD
Department of Diagnostic Radiology
University of Alabama at Birmingham
JT N370
619 19th Street South
Birmingham, AL 35249-6830, USA
E-mail address: pkenney@uabmc.edu