

## N

*Nephrogenic rests.* See 'Nephroblastomatosis in Collecting Duct Carcinoma'.

*Nephrolithiasis in ureteral calculi.* See 'Ureter, Obstruction of'.

### **Nephroma Mesoblastic, Congenital**

- Congenital mesoblastic nephroma, or congenital fetal renal hamartoma, occurs almost exclusively in the first year of life and it is the most common solid renal tumor in the newborn.
- Most patients present with a palpable abdominal mass. Hematuria, hypercalcemia, abdominal pain, and hypertension also occur. It has in general a benign course.
- CT: The tumor appears as a nonenhancing low-attenuation mass within which scattered islands of enhancing residual normal parenchyma.
- MRI: Most common finding on MR imaging are homogeneously low signal intensities on T1-weighted sequences and homogeneously low signal intensities on T2-weighted sequences. Infrequently, areas of necrosis and hemorrhage are seen.

## **Nephrostomy, Percutaneous**

- Percutaneous nephrostomy is a procedure used mainly in the decompression of the renal collecting system. When the obstructed system becomes infected, and antibiotics are unable to penetrate the kidney and if the purulent material cannot be drained, percutaneous nephrostomy is a resolute treatment because it allows decompression of the obstructed system, permits specimen collection, and creates a route for antibiotic instillation if needed.
- The indication for CT guidance is limited because most nephrostomies can be performed easily using either fluoroscopic or ultrasound guidance. The indications for which CT guidance may be used are renal transplants, unilateral kidney, high-risk patients, or a kidney with a urinoma associated with hydronephrosis.
- When the nephrostomy is performed under CT guidance, several technical maneuvers are important. Once the collecting system has been penetrated, a small sample of fluid should be aspirated for culture and then a small amount of contrast material should be immediately injected. This permits direct visualization under fluoroscopy when the catheter is being inserted.

## **Suggested Reading**

- Bolande RP. 1973. Congenital mesoblastic nephroma of infancy. *Pediatric pathol* 1:227–250.
- Haaga JR, Lanzieri CF, Gilkeson RC. 2003. CT and MR imaging of the whole body. Fourth Edition, Mosby.
- Prasad SR, Humphrey PA, Meninas CO et al. Neoplasms of the Renal Medulla: Radiologic-Pathologic Correlation.