History
5 day old male with weight loss, hematuria and hyponatremia.

Diagnosis
Nephrogenic rest

Discussion
Nephrogenic rests are persistent embryonic tissue related to incomplete induction of metanephric blastema by the ureteral bud
- Found in 1% of neonates although frequency rapidly decreases with age
- Lobar has greater malignant potential
- Perilobar is more common, (11p15)
Nephrogenic rests are present in 33% of kidneys with Wilms tumor
Syndromes associated with nephrogenic rests include
- Beckwith-Wiedemann syndrome (perilobar)
- Hemihypertrophy (perilobar)
- Sporadic aniridia (intralobar)
- Drash (intralobar)

Keys to differentiating nephrogenic rests from Wilms tumor
- Spherical shape Wilms
- Ovoid or lentiform nephrogenic rest
- greater than 3 cm Wilms
- less than 2 cm nephrogenic rest
- Fibrous capsule Wilms
- No capsule nephrogenic rest
- Heterogeneous texture Wilms
- Uniform texture nephrogenic rest

Findings
US-Large poorly delineated hyper echoic central right renal lesion with occasional cystic spaces.
Non contrast CT-Noncalcified isodense right renal mass.
Contrast enhanced CT-Hypoenhancing central right renal mass.

Reference
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