Case 880

Multilocular Cystic Nephroma
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Section: Uroradiology & genital male imaging
Imaging Technique: Ultrasound
Case Type: Clinical Cases
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Patient: 11 months, male

Clinical History:

presented with a right-sided painless abdominal mass. He was in good clinical condition. Physical examination revealed only a palpable mass in the right flank. There was no history of urinary tract infection. Stools and bowel habits were normal. Routine laboratory examination of blood and urine yielded no abnormalities. Further investigations included plain film of the abdomen, ultrasonography of the kidneys and macroscopic examination of the resected right kidney.

Imaging Findings:

An 11-month-old boy presented with a right-sided painless abdominal mass. He was in good clinical condition. Physical examination revealed only a palpable mass in the right flank. There was no history of urinary tract infection. Stools and bowel habits were normal. Routine laboratory examination of blood and urine yielded no abnormalities. Further investigations included plain film of the abdomen, ultrasonography of the kidneys and macroscopic examination of the resected right kidney. The patient underwent a radical right nephrectomy. Subsequent histological examination revealed a multilocular cystic nephroma. Recovery was uneventful.

Discussion:

Multilocular cystic nephroma (MCN) is an uncommon, nonhereditary renal neoplasm. Macroscopically, it is characterized by a well developed capsule, fibrous stroma, and septa that separate multiple epithelial lined, non-communicating cysts. Classically, the lesion is said to be unilateral. However, multiple individual lesions affecting both kidneys have been reported. There is a bimodal age distribution: MCN most often occurs in infants and children from 3 months up to 4 years of age, or in adults during fourth to eighth decades of life. In children, boys are more commonly affected, while in adults there is a predominance in women. Clinical findings are aspecific. In children MCN usually presents as an asymptomatic mass found on routine physical examination. Although also often found incidentally, adults with MCN may present with an abdominal mass, flank pain or hematuria. MCN usually grows slowly, although occasionally rapid growth is seen in young children. Since the lesion is an intrinsic renal mass, urography shows caliceal and pelvic distortion, with degree of distortion dependent upon location and size of the mass. Ultrasonography alone is usually not diagnostic. It may show a solid mass with multiple internal echoes or a mass consisting of numerous cysts. On CT scan, enhancing strands of renal parenchyma are present among the cysts and small cysts may become evident in the less afflicted parts of the kidney. Demonstration of an encapsulated renal mass helps to distinguish it from cystic renal carcinoma. Surgical resection is usually curative.

Differential Diagnosis List: Multilocular Cystic Nephroma
Final Diagnosis: Multilocular Cystic Nephroma

References:
Figure 1

**Description:** Plain radiograph of the abdomen shows a large soft tissue mass in the right flank, displacing the stomach and bowel loops to the left and downward. No clear delineation of the right kidney is seen. **Origin:**
**Figure 2**

Description: Ultrasonography of the right kidney demonstrates on the sagittal plane, a huge multilocular cystic lesion at the upper pole and middle third of the right kidney. Normal renal parenchyma at the caudal side of the mass, resembling the lower pole of the right kidney is noted.

Origin:
Description: On the transverse plane, numerous variable sized, anechoic structures, corresponding to cysts, separated from each other by thick and thin septa are visualized. Origin:
Description: Examination of the resected specimen reveals a large multicystic mass, occupying the middle and upper pole of the right kidney. Compression of the normal appearing lower pole of the right kidney is seen. Origin: