

CASE NOTE

Giant symptomatic adrenal cyst in a patient with an ectopic kidney

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Adrenal cysts are rare, with an incidence varying from 0.06% to 0.18% in an autopsy series.¹ Most are asymptomatic and found incidentally. They may cause long-standing symptoms because of pressure on the stomach and colon, or the clinical course may be sudden and severe due to hemorrhage inside the cyst or rupture of the cyst. The cysts most frequently found in the adrenal gland are pseudocysts and endothelial, epithelial and parasitic cysts.² We report a case of adrenal pseudocyst that occurred with a congenital renal anomaly to point out that adrenal cysts must be suspected when a cystic lesion is found in the kidney area in a patient with an ectopic kidney.

CASE REPORT

A 26-year-old man presented with a 2-month history of left-sided flank pain and an abdominal mass palpable in the left hypochondrium. The intensity of the pain had increased during the previous week. He had a history of trauma: 3 years earlier, he had fallen on his back from a height of 4 m. Abdominal ultrasonography showed a large cystic mass in the upper left side of the abdomen. Since the left kidney could not be evaluated with ultrasonography, the patient's urologist planned a 3-dimensional computed tomographic (CT)-urographic examination. This showed that his left kidney was located ectopically at the pelvis and that a cystic mass with a thick wall 121 × 111 mm in diameter was situated in the left renal region close and medial to the spleen and posterior to the tail of the pancreas (Fig. 1).

Fine-needle aspiration of the cystic mass yielded a hemorrhagic aspirate. At laparotomy, we were easily able to separate the cyst from the pancreas, but it was densely adherent to the posterior abdominal wall. The cyst ruptured at the instant of resection and contained a reddish brown fluid. Cyst wall thickness ranged from 2 to 10 mm. The cyst was completely removed and sent for pathological examination. Microscopically, the cyst wall comprised fibrous tissue without any epithelial or endothelial lining. Normal adrenal tissue was compressed to the periphery (Fig. 2). The patient's postoperative course was smooth, and he was discharged 3 days postoperatively. At 19 months' follow-up he was clinically well without any complaints.

DISCUSSION

Fewer than 500 cases of adrenal cysts have been reported to date.² Four major types are recognized: pseudocysts and epithelial, parasitic and endothelial cysts. Adrenal pseudocysts are cystic lesions arising within the adrenal gland surrounded by a fibrous tissue wall devoid of a recognizable lining. The etiology is not well understood, but adrenal pseudocysts are believed to originate from organization of a previous hemorrhagic or infectious process. Unilateral adrenal hemorrhage is usually caused by blunt abdominal trauma, adrenal vein thrombosis and a neoplasm. Pseudocysts may be isolated or associated

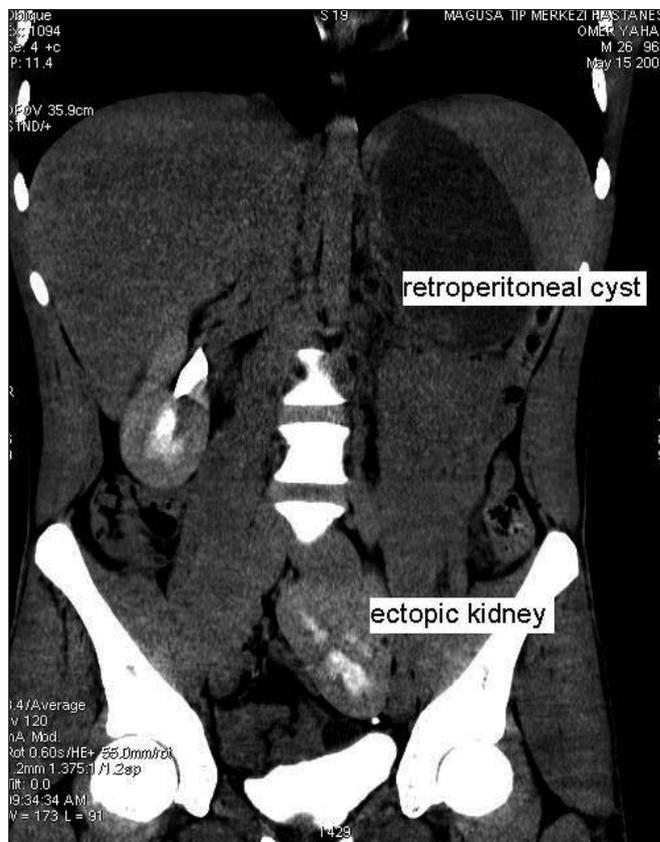


Fig. 1. Three-dimensional computed tomography-urography shows the left retroperitoneal cyst with an ectopic kidney.

with a primary adrenal neoplasm. Adrenal neoplasms, adrenal cortical carcinomas, adrenal cortical adenomas, pheochromocytomas and neuroblastomas may be associated with cysts that appear benign.³

Despite the close anatomic relationship of the adrenal gland and the kidney, only the shape of the adrenal gland, not the localization, is changed in a patient with an ectopic kidney (CT appearance of the adrenal gland is disk-shaped in patients with an ectopic kidney instead of the normal tri-corn).⁴ Adrenal glands in patients with congenital renal anomalies are in natural localizations because these 2 organs have different embryologic origins, so adrenal cysts must be suspected when a cystic lesion is found that is situated in the kidney region in a patient with an ectopic kidney.

Surgical excision of an adrenal cyst is indicated when

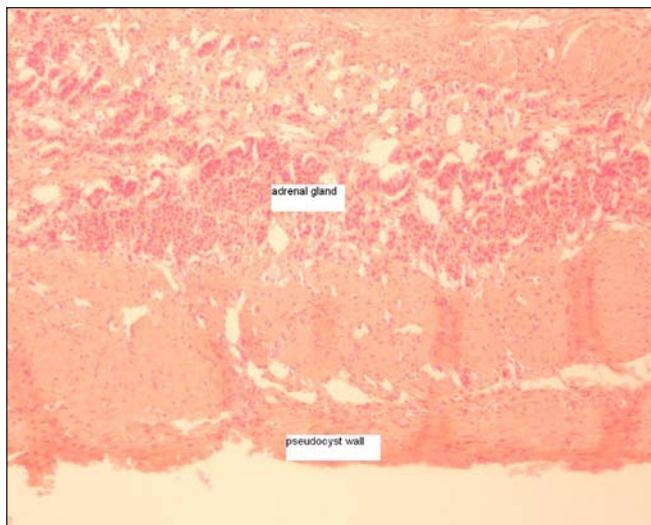


Fig. 2. Microscopic section of the excised pseudocyst shows the adrenal tissue and the cyst wall, which comprised fibrous tissue without any epithelial or endothelial lining (hematoxylin-eosin stain, original magnification $\times 10$).

there are symptoms, endocrine abnormalities, complications, a suspicion of malignancy or large size (> 5 cm). Adrenal cysts larger than 10 cm are rare and pose a differential diagnostic dilemma. Surgical excision of the lesion in our patient was planned because of his pain, lesion size (> 5 cm) and the hemorrhagic aspirate. At the time of surgery, we concluded that this was a cyst originating from the adrenal gland. Subsequent microscopic evaluation confirmed the initial diagnosis.

Competing interests: None declared.

References

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