LETTER TO THE EDITOR

Renal Parapelvıc Cyst in a 3-year-old Boy

The Editor,

Sir,

Cysts adjacent to the renal pelvis (parapelvic cysts [PPCs]) are very rare in children (1). Parapelvic cysts are thought to develop as a result of the ectasia or obstruction of the renal sinus lymphatics, or they may be remnants of rudimentary glomeruli (2, 3). Dilatation of the lymphatics simulates hydronephrosis because the lymphatic system follows the course of the collecting system. Parapelvic cysts can cause obstruction, pain, infection, stone formation, and hypertension if they compress the renal pelvis (4–6).

We report a 3-year-old boy with right flank pain and gross haematuria. His medical history revealed recurrent right flank pain and urinary tract infections. The result of urine sediment analysis indicated profuse amounts of erythrocytes and leucocytes. Abdominal ultrasonography (USG) showed a cystic structure at the right kidney that was interpreted as hydronephrosis. Computed abdominal tomography (CT) revealed a cystic mass 1.5 cm in diameter in the upper part of the right kidney adjacent to the renal pelvis. The cyst, which was considered a PPC, did not communicate with the collecting system and was not enhanced by the injection of contrast material (Figure). The patient was treated with antibiotics according to the types of microorganisms identified in his urine. Haematuria ceased a few days later, and the abdominal pain resolved.

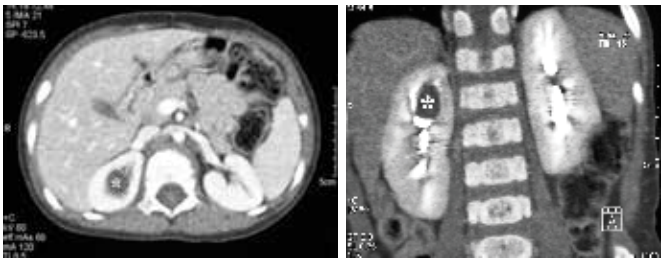

Figure. Parapelvis cyst adjacent to the renal pelvis. Coronal (a) and sagittal (b) slides. The cyst does not communicate with the renal pelvis.

Parapelvic cysts are non-neoplastic lesions that are typically unilocular, are usually filled with a clear serous fluid and are lined with a cuboidal epithelium. Only 0.2% of PPCs occur in neonates or other paediatric patients, and more than 50% are found in people older than 50 years (which suggests that PPCs are acquired lesions) (7). The diagnosis of PPC is based on the results of USG and CT imaging. Parapelvic cysts appear on USG as medially located cystic masses with surrounding echogenic walls. It should be kept in mind that PPCs can be confused with hydronephrosis, in which the dilated calyces coalesce centrally. If a PPC cannot be differentiated from hydronephrosis via USG, enhanced CT can be used to confirm the diagnosis (8). Differential diagnoses include benign conditions such as renal sinus lipomatosis, haemorrhage urinoma or polycystic kidney disease, as well as malignant lesions such as renal carcinoma (9). Asymptomatic PPCs require simple surveillance. Surgical management is necessary for large cysts that cause haematuria, hypertension, back pain or other complications. Recently, the ablation of renal cysts by a minimally invasive approach has replaced open surgical intervention (5). The transperitoneal approach is generally proposed for the treatment of anterior cysts, and the retroperitoneoscopic approach is suggested for posterior cysts (10). Percutaneous aspiration and sclerotherapy are the other treatment modalities but they are more dangerous than when used to treat a peripheral cyst because of the proximity of the PPC to renal hilar structures.

We concluded that PPCs are easily identified by means of USG and CT. Because larger and symptomatic cysts are detected in older people, it may be speculated that in children, PPCs could enlarge over time. Thus, children with a small asymptomatic cyst should be closely monitored.

Keywords: Parapelvic lymphangiectasia, peripelvic cyst, renal sinus cyst.

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