Multilocular cyst of kidney

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Summary: We describe a child with a multilocular renal cyst who presented with a renal mass and pain due to haemorrhage into the cyst. This type of presentation has not been reported previously.

Introduction

Multilocular cysts of the kidney are rare lesions and about 40 patients have been described, 18 of them being children (De Luca & Wesselhoeft, 1980). The recognized presenting features are asymptomatic abdominal mass, haematuria and, rarely, hypertension.

Case report

A 3 year old male child was admitted with a right sided abdominal mass of 2 months and pain over the mass of 15 days duration. There were no bowel or urinary complaints. There was a history of loss of 2 kg body weight in the preceding 2 months. Abdominal examination revealed a smooth, oval, 10 × 8 cm, firm and mobile mass in the right lumbar area. An excretory urogram showed a mass occupying the lower pole of the right kidney with displaced pelvicalyceal system. Ultrasonography demonstrated multiple cystic spaces in the tumour mass.

On exploration, a lobulated, firm mass, 10 cm in size, was observed in the right kidney. Needle aspiration of the mass revealed haemorrhagic fluid. Simple nephrectomy was performed. Cut section revealed a multilocular cyst containing haemorrhagic fluid with clots, in the lower half of the kidney (Figure 1). There was no evidence of neoplastic changes on histology. The recovery was uneventful and the child was well at 2 years follow-up.

Discussion

The exact nature of multilocular cysts of kidney is not known. The criteria for diagnosis are that the cysts

must be solitary, unilateral, contain multiple loculi which do not communicate with one another or with the renal pelvis; the loculi must have an epithelial lining and must not contain renal elements (Powell *et al.*, 1951). The disease is considered as a localized expression of polycystic renal disease (Osathanondh & Potter, 1964) or as a variant of nephroblastoma (Fowler, 1971), although the latter theory is not widely accepted. The lesion is seen in children less than 5 years old or patients over 18 years old. The lesion usually presents as an asymptomatic renal mass, haematuria or, rarely, hypertension. Our patient presented with a painful renal mass possibly because of haemorrhage into the cyst and this type of presentation has not been reported previously.

Multilocular cyst of the kidney must be differentiated from multicystic and polycystic kidneys (Dainko *et al.*, 1963). The kidney in multilocular cyst is distorted by a lobulated mass consisting of numerous

Figure 1 Cut section of the kidney showing multilocular cyst with variable sized loculi and the compressed renal parenchyma in the upper pole.

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cysts of variable sizes. The cysts contain a clear, colourless fluid (De Luca & Wesselhoeft, 1980). There is no recognizable kidney tissue within the cysts, but above and below are compressed remnants of the kidney. In multicystic kidney, there is no functioning renal tissue present and the renal parenchyma is replaced by numerous cysts held together by fibrous tissue without any renal configuration. The cysts may communicate with the renal pelvis. The polycystic disease is usually bilateral, cysts are approximately equal in size and are dispersed throughout the sub-

stance of the kidney. The lesion has a familial tendency.

The excretory urographic findings in multicystic kidney are nonspecific. Ultrasonography may be useful in delineating the cystic nature of the mass, although awareness of the lesion is essential for recognition and salvage of kidney (Thomas *et al.*, 1982). Extirpation of the cystic mass with preservation of the remaining kidney is the preferred treatment, although when the diagnosis is not certain, nephrectomy is warranted (Johnson *et al.*, 1973).

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