To the Editors:

Multicystic dysplastic kidney of the adult

A 26-year-old man presented with left loin pain of 6 months' duration. He was normotensive and his urine analysis was normal. His x-ray KUB showed multiple circumscribed rims of calcification in the left renal area. Abdominal ultrasonography revealed a hydroureteric left kidney. The intravenous urogram and the isotope renogram showed a non-functioning left kidney with a normal right kidney.

At exploration there was loss of the reniform configuration of the kidney resembling a "bunch of grapes" (Figure 1). The ureter was slender. Left nephrectomy was done. The cut surface of the kidney showed multiple cystic areas with calcified walls (Figure 2). There was no renal tissue macroscopically. The histopathological examination confirmed the absence of normal tubular and glomerular structure. The ureter was atretic with multiple small lumina lined by transitional epithelium.

The multicystic dysplastic kidney (MCDK) represents a severe form of renal dysplasia and is a common neonatal abdominal mass (1). MCDK in the adult is rare probably due to the frequent involution of the affected kidney during the first few years of life (2). The majority of multicystic kidneys are identified during the first year of life as asymptomatic, unilateral abdominal masses. The vascular pedicle is frequently absent and the ureter and renal pelvis are usually hypoplastic or atretic.

Although high success rates have been reported, ultrasonographic diagnosis could be misleading at times due to the difficulty in differentiating it from hydronephrosis (3). The intravenous urogram may reveal a flank mass, a non-visualising kidney and shell-like calcifications (4, 5). The retrograde pyelogram may demonstrate an atretic ureter although this study is seldom performed.

A MCDK can be symptomatic especially in adults with pain, pressure on adjacent organs and infection (1, 2). The relation to hypertension and predisposition to malignancy remain undefined possibilities (4, 5, 6). Up to a third of the patients with MCDK may have associated contralateral renal abnormalities such as pelvi-ureteric junction obstruction and vesico-ureteric reflux (1, 4).

Surgical therapy of multicystic dysplastic kidney is a subject of controversy. The development of accurate diagnostic techniques has persuaded many clinicians to advocate non-operative management (5). But some believe eventual excision of a multicystic dysplastic kidney would be necessary (1). When there is any doubt about the diagnosis of a MCDK or when there are any related symptoms, operation is mandatory.

References