

Images in Nephrology
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Not so simple renal cysts

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An 82-year-old male had been suffering from anorexia and abdominal discomfort for several months. He was admitted to hospital, incapable of walking due to a prominent abdomen. His medical history showed hypertension for 10 years and renal cysts that had progressively increased over the past 30 years. Familial history was unremarkable. Clinical examination revealed a strikingly enlarged abdomen (Figure 1). Serum creatinine level was 250 $\mu\text{mol/L}$ (eGFR 22 mL/min/1.73 m²). Non-enhanced abdominal CT scan showed one voluminous cyst in the left kidney (36 cm \times 24 cm, Figure 2) and one cyst in the right kidney (17 cm diameter). The volume of the largest cyst was estimated to be 21 L based on 3D volume reconstruction. The small number of cysts and reduced size of the renal parenchyma excluded autosomal dominant polycystic kidney disease. The decreased renal function was probably related to renal vascular disease.

Seven litres of sterile serohaematic fluid were removed by percutaneous drainage of the largest cyst under ultrasound guidance. The patient subsequently developed fever, which persisted despite broad-spectrum antibiotics. His nutritional condition had worsened. In addition, he suffered from restrictive respiratory insufficiency, and the lower extremities exhibited oedema due to inferior vena cava compression.

The patient underwent left nephrectomy. The extracted kidney was purulent, and histological analysis showed no evidence of malignancy. The patient recovered after several weeks in the intensive-care unit, with a serum creatinine level stabilizing at 240 $\mu\text{mol/L}$ (eGFR 23 mL/min/1.73 m²).

Renal cysts are usually asymptomatic, and frequency is estimated at 30% after 70 years of age [1]. When symptomatic, percutaneous drainage with sclerotherapy and, in exceptional cases, surgery may be proposed [2]. This case highlights the possibility of voluminous simple renal cysts causing organ compression symptoms. Considering the risk of complications, we suggest that puncture or surgery be considered only in the presence of severe symptoms.

References

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Fig. 1. A strikingly enlarged abdomen revealed by clinical examination.

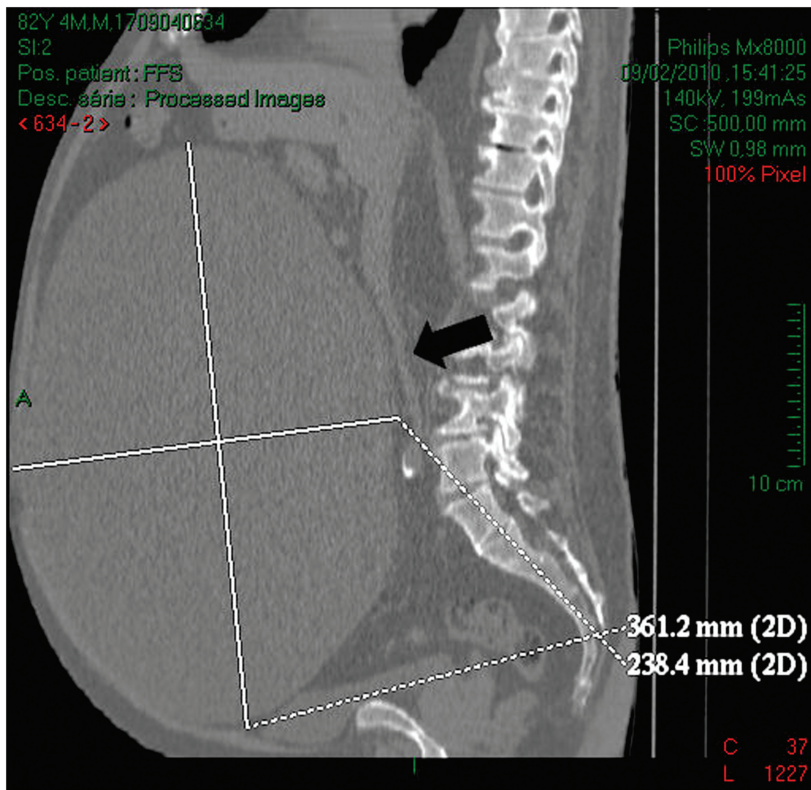


Fig. 2. Non-enhanced abdominal CT scan showed one voluminous cyst in the left kidney.