An Unusual Cause of Giant Renal Mass

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Abstract

We report a case of an unusual cause of a giant renal mass – a simple renal cyst, visible on inspection and shifting the kidney to the opposite side of midline.

Key words: Renal cyst, Laparoscopic.

Introduction

A simple cyst is the most common benign lesion of the kidney that may occur well within a kidney or on its surface. It is usually oval or round in shape, has a smooth outline, bordered by a single layer of flattened epithelium, and is filled with transudate like clear or straw coloured fluid. Simple cysts may be single or multiple, unilateral or bilateral, and vary considerably in size ranging from < 1 cm to > 10 cms. We report a case of giant simple renal cyst measuring > 20 cms x 18 cms in size, managed by open surgical drainage with de-roofing (cyst excision).

Case report

The patient, a 68-years-old male, presented to us with...
complaints of pain and heaviness of left lumbar region for 3 - 4 months. The whole of left half of abdomen was distended. A ballotable cystic swelling was palpable, extending from left costal margin to pelvis. He had already undergone open cholecystectomy preceded by ERCP for jaundice at some other hospital six months ago. Radiological studies – ultrasound abdomen and contrast enhanced CT (CECT) scan abdomen – showed multiple benign simple renal cysts of left kidney. The size of majority of cysts varied from 1.5 - 2 cms, but one of these was exceptionally giant sized – measuring > 20 cms x 18 cms. (Fig. 1). The cysts had oval shape, good acoustic enhancement, no internal echoes, and sharply margined smooth walls. The giant cyst was shifting the kidney to the opposite side of midline and was compressing the descending colon leading to symptom of intermittent constipation. The kidney parenchyma was preserved and function was obvious on intravenous urography. There was no family history of similar ailment, nor did the patient have cyst/tumour of any other organ. Since he had an abdominal operation in the past, and cyst was giant sized, open surgical de-roofing (cyst excision) through extraperitoneal flank incision was performed. The cyst (Fig. 2) contained ~ 2.7 litres of straw coloured fluid. The fluid cytology and cyst histology were negative for tumour.

Discussion

Simple renal cysts are extremely common, being encountered in adulthood, increasing in frequency with age, and are present in upto 50% of population over the age of 50 years, and upto 2/3 of population have a cyst detectable on CT scan by the age of 80 years1. They are occasionally large enough to be palpable on routine clinical examination or by the patient himself. However, majority of the cysts are < 2 cms in size2. Most cysts are not visible on plain radiographs but occasionally, if they are large enough, they can be identified as well-defined soft masses on IVU, distorting the adjacent renal outline and pelvicalyceal system (Fig. 3). In our case, the cyst was giant enough to be visible on inspection and to cause shifting of pelvicalyceal system to other side of midline.

Given the simultaneous diagnostic and therapeutic aspects of cyst drainage and sclerotherapy, it is the obvious first line of treatment for cysts as large as 600 ml. If a general cyst decortication of the surface is deemed advisable, this may be performed using an open or laparoscopic approach.

Laparoscopic retroperitoneal three trocar technique was
used for ablation of a giant symptomatic renal cyst by Singh et al. The authors concluded that the retroperitoneal approach shortens the overall operating time and avoids complications and demerits of transperitoneal access. In our case laparoscopic approach was not considered feasible.

Our patient has been advised long-term follow-up to demark the case as a discrete, nongenetic entity – unilateral renal cystic disease.

References