MEGA RENAL CYST

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INTRODUCTION

The term 'solitary cyst serves to distinguish the condition from congenital cystic disease of the kidney, which is a hereditary disorder. There may be small cysts in one or both kidneys accompanying the main cyst. It has to be differentiated from Hydatid disease of kidneys and liver, mesenteric or pseudopancreatic cyst. It contains uninfused fluid which may often get infected. Here we present a unique case of very huge right renal cyst which was occupying almost whole of the peritoneal cavity.

CASE REPORT

A 50-year old man was admitted through outpatient department to Surgical 'C' Unit on 19.09.1996. He presented with complaints of abdominal distension, which he first noticed 27-years ago. For the last 2 years, the distention was increasing and pain in right lumbar area and around umbilicus for the last 16 days. He was also complaining of vomiting off and on. There was no history of bowel irregularities neither any history of urinary problems. He had no major illness in the past. He was once admitted in hospital for snake bite in 1971 in Bengal.

Clinically he was healthy looking, with grossly distended abdomen. He was afebrile, slightly tachycardiac (100/min). His abdominal examination revealed gross distension with averted umbilicus, no visible veins or scars. A cystic mass was palpable involving right upper and lower quadrant and extending into left upper quadrant. The mass was mobile and non tender.

His investigation revealed haemoglobin level of 13.2 gm% with TLC of 9,600/mm³ with normal serum biochemistry and urinalysis. His liver function tests, KUB, chest X-Ray and ECG were within normal limits. Ultrasound of abdomen revealed a very large unilocular cystic mass displacing the liver and other viscer, extending into both flanks and pelvis suggestive of pseudopancreatic cyst or mesenteric cyst.

The patient was explored through a midline incision, and a large retroperitoneal cyst was found arising from the right kidney containing 7 liters of straw coloured fluid, which was aspirated (Fig. 1, 2). It was found that cyst was arising from anterior half of kidney with normal looking posterior half (Fig. 3). There was no renal pelvis, the base of cyst was lying on anterior surface of the kidney with large blood vessels arising from the renal vessels, the upper ureter was cord like structure with no connection to the cyst. Right nephrectomy was performed and specimen was sent for histopathology. The patient post-operative recovery was uneventful.

The histopathological report revealed a normal renal parenchyma with formations of small benign cysts and anterior half of renal parenchyma being replaced by a benign
cyst, the wall of which showed no malignant change.

DISCUSSION

The term solitary cyst serves to distinguish the condition from congenital polycystic disease of the kidney. More often more than one cyst may be present in one or both kidneys. They usually arise from lower pole of the kidney. It may enlarge to a considerable size. Simple renal cyst is lined with epithelium similar to the nephron segment from which they arise. They may be lined by loose junctional epithelia (similar to proximal convoluted tubules) or tight junctional epithelia (like distal convoluted tubules). They must often have no connection with collecting ducts and contains uriniferous fluid of low specific gravity.¹ ²

Large renal cyst may be asymptomatic or may present with abdominal distension, pain in flanks or balkingly hypertension, renal calyceal or pelvic obstruction, or deteriorating kidney function requiring surgical intervention. Renal cyst infection is a serious complication and is often refractory to standard antimicrobial treatment. The predominant organism is enteric gram negative aerobes commonly E. coli.¹ ² They must be differentiated from hydatid cyst of liver or kidney or from mesenteric cyst. The main stay of investigation is ultrasound and intra venous urography not done in this case.

Percutaneous aspiration or sclerotherapy are less invasive management options. Several sclerosant agents are in use, no single agent showed to be more effective or less toxic than others.³ They are believed to produce local inflammation of luminal surface of cyst thereby resulting in adhesion of cyst wall. Various sclerosing agents used are ethanolamine olate, phenol, absolute alcohol, bismuth phosphate.⁴ Non of these agents are free of toxic effects both locally and systemically, moreover the treatment is not 100% successful.

The best treatment in this case was nephrectomy with removal of the cyst, as the normal looking posterior half of the renal tissue had no connection with the collecting system (Fig. 2 & 3).

REFERENCES


