Retroperitoneal Cyst

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Introduction

Retroperitoneal cysts are believed to be benign tumours of retroperitoneum. They often attain large proportions before causing any symptoms. These rare tumours are derived from remnants of embryonal urogenital apparatus which includes tissues of both epithelial and mesothelial origin [1]. Treatment of choice is surgical excision. Incomplete excision often results in recurrence. The aim of presenting this case report, is to highlight the rarity of its presentation and its need for differentiation from unilateral hydronephrosis.

Case Report

61 year old female, presented with pain in left lumbar region of 5 months duration. Pain was insidious in onset, continuous dull aching in character and nonradiating. There were no aggravating or relieving factors. There were no associated bowel or urinary symptoms. She denied any history of fever or weight loss. General examination was noncontributory. Abdominal examination revealed mild fullness in left lumbar and iliac regions. Left renal angle was free. A 15x10 cms lump was felt in the left lumbar and left iliac region, which was non tender. The lump was retroperitoneal in location and was soft and cystic. Its margins were ill defined and the lump was bimanually palpable.

Ultrasonography (USG) of the abdomen showed a large retroperitoneal multiseptate, cystic mass measuring 17x10 cms. It extended from the left hypochondrium to the left iliac region. The left kidney was displaced posteromedially. There was no pelvicalyceal dilatation. Contrast enhanced computerised tomography (CT) of the abdomen and pelvis defined the presence of a large cystic mass inferior to the spleen and lateral to the left kidney. The inferior margin of the mass was in the left iliac fossa. Fascial planes were well defined (Fig. 1). These findings were suggestive of benign retroperitoneal cyst. IVU study confirmed the medial displacement of the left ureter. There were no backpressure changes. Relevant haematological and biochemical investigations were normal.

She was diagnosed as a case of retroperitoneal cyst and surgical excision was planned. Under combined spinal and epidural anaesthesia, the patient was placed in a supine position with a 45° right lateral tilt. Extraperitoneal flank approach was used to expose the lump. There was a large cystic mass, 16x10 cms in the left retroperitoneal space, which extended from the lower pole of left kidney to the pelvic brim and medially up to the midline (Fig. 2). Fascial planes were well preserved. The cyst contained serous fluid. Left ureter was identified and safeguarded. Complete excision of the cyst was possible using blunt and sharp dissection. The incision was closed in single layer with No 1 prolene. Postoperative period was uneventful.

High power field examination revealed a multiloculated thin walled cyst measuring 18x10 cms and it weighed 600 gms. Microscopic examination showed the cyst wall with an attenuated lining. The lining cells could not be identified with certainty. Final diagnosis - Benign Retroperitoneal Cyst? Mesothelial cyst.

The patient was followed up for one year at three monthly intervals. Complete clinical examination and USG was done during each visit. She has remained asymptomatic and there has been no evidence of recurrence.

Discussion

The retroperitoneal space is bounded posteriorly by the spine, psoas and quadratus lumborum muscles, superiorly by diaphragm and inferiorly by the levator muscles of pelvis. Anteriorly, this space is bounded by posterior parietal peritoneum. This potentially large space contains organs derived from ectoderm and endoderm that are all embedded in a loose network of connective tissue. This allows both primary and metastatic tumours to grow silently before the appearance of signs and symptoms.

Simple retroperitoneal cysts are rare abdominal masses [2]. Majority of them are derived from the Wolffian duct, in which case they are filled with clear fluid. Others are teratomatous and are filled with sebaceous material [3]. Rarely, lymphangiomas in the retroperitoneum can also occur [4,5]. This retroperitoneal cyst can often attain large proportions before causing any symptoms and may be accidentally detected.

There are no pathognomonic signs of retroperitoneal cysts. Abdominal pain and distension are present in 50% of cases [2]. They may occasionally present with acute abdominal pain [6]. The diagnosis can usually be made

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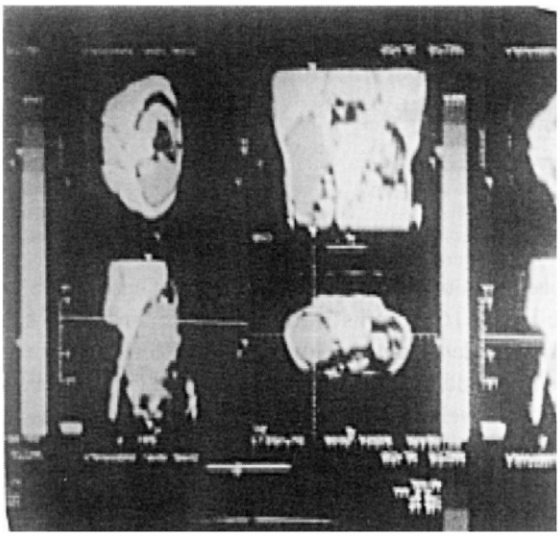

Fig. 1 : CT scan showing a large retroperioteneal cyst, displacing the left kidney medially

with the help of USG and CT scan.

These cysts may be unilocular or multilocular and need to be distinguished from hydronephrosis. Depending upon their origin, the cyst may be lined either by the cells of mesothelial or mesonephric origin. Treatment of choice is, complete excision with, if necessary, the resection of a portion of the adherent bowel. Marsupialization and partial excision of the cyst are less satisfactory procedures. Retroperitoneal cyst can be excised by using a transperitoneal flank approach. Extraperitoneal approach avoids entry into the peritoneal cavity and affords the following advantages [7] :

1. Reduced intraoperative fluid and heat loss.
2. Postoperative ileus is brief. This allows the continuous use of alimentary tract to deliver nutritional support to the hypermetabolic postoperative patient.
3. There is reduced incidence of postoperative atelectasis and pneumonia.
4. It avoids manipulation of gut and subsequent development of adhesions.

These advantages make extraperitoneal flank approach, the approach of choice for excision of benign retroperitoneal cyst.

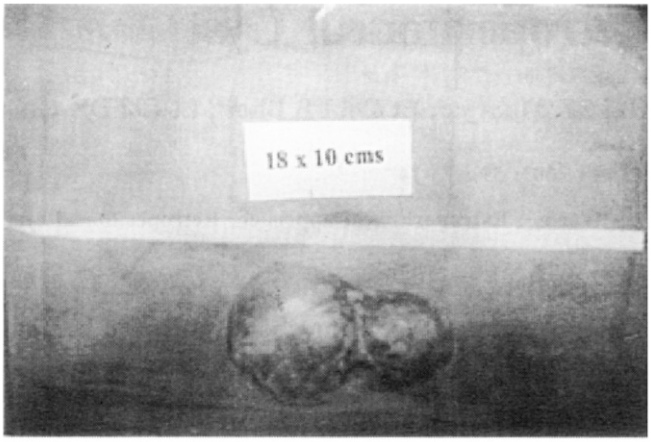

Fig. 2 : Retroperitoneal cyst excised completely

Recurrence following excision of retroperitoneal cyst can occur if excision is incomplete. True incidence of recurrence is not known, however, in one series a figure of 25% has been quoted [2]. Complete excision of retroperitoneal cyst is therefore very important. In this case, the excision was complete and there has not been any evidence of recurrence after one year of follow up.

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