Giant primary omental cyst mimicking a pseudoascites

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ABSTRACT

Primary omental cysts are rare intra-abdominal pathology, which are difficult to diagnose preoperatively; as such a high index of suspicion is required for accurate preoperative diagnosis. We present a case of primary omental cyst in an eight-year-old girl who presented with huge abdominal distension mimicking ascites. She was operated and cyst was extirpated completely. Histological examination revealed an omental cyst with endothelial lining and haemorrhagic fluid inside. Patient was followed up for a period of one year and had no post operative complication or recurrence of the disease. This case is reported to emphasise the inclusion of huge omental cyst in the differential diagnosis of ascites especially in the paediatric age group.

Key words: Omental cyst, Omentum, pseudoascites

INTRODUCTION

The true incidence of omental cyst may be much higher than reported cases in literature because usually only cysts of clinical importance are reported.[1] The rarity of mesenteric and omental cysts, with an incidence of only about 1 in 140,000 hospital admissions, and the absence of characteristic clinical findings make diagnosis difficult.[2] Only 2.2% of these cysts (mesenteric and omental cysts combined) are omental cysts. Moynihan rightly stated that "Cysts of mesentery are among the surgical rarities". The omental cysts are rarer, with only about 150 cases recognised till now, 25% of which presented in children less than 10 years of age.[3]

CASE REPORT

An eight year old girl presented to our outdoor Surgical Department as a case of distended abdomen of two months duration. The patient complained of increased abdominal swelling (pants did not fit anymore). Patient had no previous history of any illnesses, allergies, or operations. Based on sonographic examinations done by the primary care physician and in a pediatric hospital, a suspicion of ascites was entertained. There was no history of vomiting, fever, jaundice, swelling over face, lower limb or arrest of motion or flatus.

General physical examination revealed pallor with a heart rate of 88 per minute, but there was no icterus, edema or lymphadenopathy. Her blood pressure was 108/66 mm of Hg. Abdominal examination showed generalised distension [Figure 1] with dilated veins over skin, but there was no tenderness. The liver and spleen were not palpable. Percussion note was dull note all over the abdomen with positive fluid thrill.

Hemoglobin was 10.7 gm%, platelets were adequate, erythrocyte sedimentation rate (ESR) was 35 at 1 hr, albumin = 3.6, globulin = 2.9, Uric acid = 4.4 mg% and lactate dehyrogenase (LDH) was 481 mg%. Abdominal ultrasonography (USG) was suggestive of ascites; no evidence of hepato-splenomegaly and lymphadenopathy. Abdominal computerised tomography (CT) findings were consistent with ascites [Figure 2].

The ascitic fluid was slightly hemorrhagic with mainly atypical lymphocytes, tuberculous (TB) antigen was negative, and there was absence of malignant cells; amylase was 10 iu/dl, no bile pigments or salts were present.

Patient was initially treated non-operatively, comprising sodium and fluid restriction and diuretic therapy (spironolactone 2 mg/kg/d divided bid), but did not respond. Ultimately she had diagnostic laparotomy which showed a huge omental cyst [Figure 3] arising from the greater omentum with a small pedicle. Cyst was excised completely and post operative recovery was uneventful. Cyst measured 25x 22 cms in size and weighed 4.3 kg [Figure 4]. Histology confirmed omental cyst with endothelial lining and hemorrhagic fluid inside. Patient has been regularly followed up for a period of one year and she has remained normal with no recurrence of the disease.

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Figure 1: Gross distention of the abdomen with dilated veins

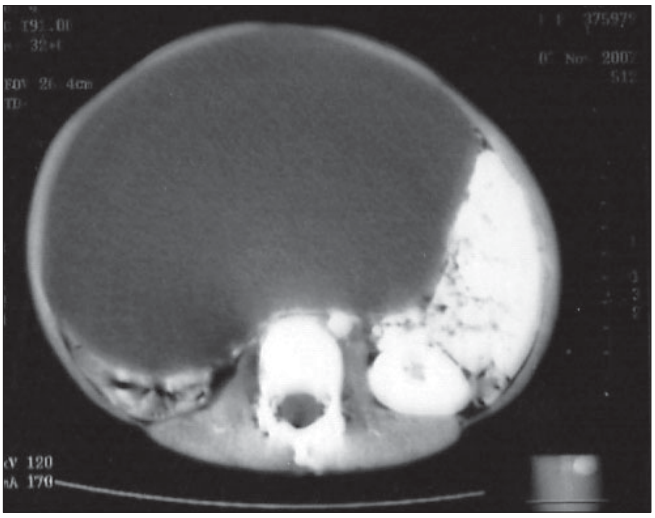


Figure 2: Computerised tomography scan image of the patient



Figure 3: Huge omental cyst attached by a small pedicle

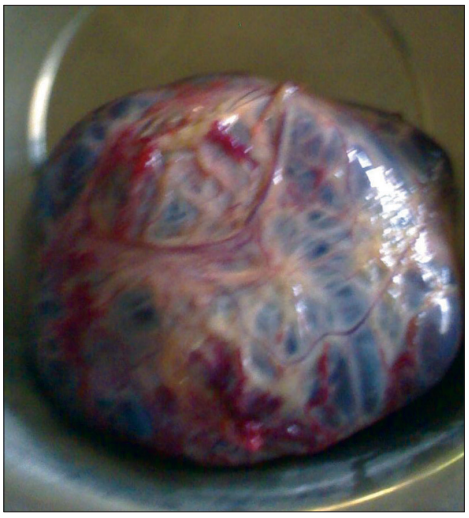


Figure 4: Post operative, cyst removed

DISCUSSION

Omental and mesenteric cysts are more common in females than in males and also are more common in the white race than in nonwhite race.[4] The exceptions are cystic lymphangiomas, which has male predominance.[5] Omental and mesenteric cysts may be congenital, traumatic, neoplastic or infectious in origin, giving rise to vague clinical features and may be a cause of the surgical acute abdomen, especially in children.[6] The typical presentation of omental cyst is low grade partial intestinal obstruction with palpable freely movable abdominal mass,[1] however, the lump is palpable in 25-50% of cases only.[7] The cysts are incidental findings in approximately 40% of the cases.[8,9]

Mesentric and omental cysts can present with chronic abdominal pain, a painless abdominal mass or acute abdomen due to rupture or torsion.[3] The most common physical finding of a mesenteric cyst is a compressible abdominal mass, movable transversely but not longitudinally: omental cysts are freely movable.[10] Unlike in adults, childhood mesenteric cysts become symptomatic very often especially lymphangiomas.[11] A correct preoperative diagnosis of omental cyst has been made in only about 13-25% of cases.[12,13] They may remain asymptomatic and grow to a great magnitude containing over three litres of fluid.[14]

The value of abdominal radiography and ultrasonographic scanning in diagnosing abdominal pain in children has been questioned.[15] Plain films of the abdomen and barium studies may be non-specific in evaluating patients with mesenteric cysts.[16] Bliss *et al*. believed that ultrasonographic imaging is the most consistent way to diagnose a mesenteric cyst in a child with acute

abdominal symptom if appendicitis is not suspected.[17] They advocate its use as an initial imaging study. With the advent of frequent abdominal scanning for a variety of reasons, it is likely that more of these lesions will be identified in the future.[18]

Apart from ascites, other differential diagnoses of omental cysts include cystic lesions such as choledochal cysts, splenic cysts, pancreatic cysts and cystadenomas, multicystic dysplastic kidney, gastrointestinal duplication cysts, and ovarian cysts.[19] The preferred treatment of omental cyst is total excision. Bowel resection is rarely necessary and recurrence is rare.[10] Cystectomy is usually indicated because of the possibility of torsion, rupture, bleeding and infection, even if the patient has no symptoms.[12] Malignant degeneration of omental cyst is rare; only a small number of cases of sarcoma and adenocarcinoma transformation have been reported.[20]

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Source of Support: Nil, **Conflict of Interest:** None.