Pseudomesenteric cyst

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Abstract Mesenteric cyst and cystic mesenteric tumour are very rare abdominal growth, which is generally encountered, in the second decade of life. Pseudomesenteric cyst is another variant with traumatic and infective etiology is rare in itself. Only 14 cases have been reported previously in the Japanese literature. Emergency operation was performed in only 3 patients. The etiology of the pseudocyst manifested by acute abdomen was unknown [1]. A case of pseudomesenteric cyst presented in the emergency with acute abdomen is reported here.

Keywords Pseudomesenteric cyst · Mesenteric cyst

Introduction

Mesenteric cysts is thought to represent benign proliferation of ectopic lymphatics that lack communication with the normal lymphatic system. This is mostly developmental in origin. These cysts usually have an endothelial lining, foam cells and a wall containing small lymphatic spaces, lymphoid tissue and smooth muscles [2].

Pseudomesenteric cysts are devoid of specific endothelial lining and of either infective or traumatic etiology. When mesenteric lymph nodes break down and the pus or lymph remains confined between the leaves of mesentery, a cystic swelling having the characteristics of a pseudomesenteric cyst is formed. The cyst may contain necrotic material, fibrin, degenerated lymphocytes and macrophage.

Case report

A 4-year-old boy presented with history of gradual distension of abdomen and dull ache from last 10 days followed by severe cramping central abdominal pain from 2 days. Patient had 4 episodes of vomiting since last 24 hours. There was no past history of similar complaint, trauma or fever.

On examination boy was dehydrated with anxious look. Pulse was 140/min. Per abdomen examination reveals asymmetric distension of abdomen more towards right side. Tenderness and guarding present. Bowel sounds was sluggish. Thin layer chromatography (TLC) was 21,000/cmm, Polymorphs 90%, ESR –52, S. Albumin 2.7. Rest of laboratory investigations was normal, X-ray abdomen was non remarkable.

USG abdomen showed extensive loculated collection with septation and high-level echos all over abdomen. Right kidney was enlarged with right hydro Ureter.

Computed tomography (CT) findings were of large multiloculated cystic mass lesion displacing bowel loops extending from abdomen to pelvis suggestive of loculated ascites/Pseudo cysts.

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Exploratory laparotomy was performed on emergency basis. A 14 × 10 cm size thick walled cyst adherent to terminal ileum and caecum was present covering almost whole of abdomen (Fig. 1). Rest of gut was normal. Right hydroureter was seen, which might be due to mass effect. Cyst was excised along with distal ileum, caecum and appendix and ileocolic Anastomosis was performed.

Histopathology showed large cystic mass attached to the wall of respected part of terminal ileum and caecum with part of appendix is embedded in the wall of cyst grossly (Fig. 2). Cut section showed cyst wall made up of vascularised fibrous tissue with no endothelial lining. Mass within the cyst lumen consists of necrotic material, fibrin and degenerated leucocytes with no specific pathology suggestive of pseudomesenteric cyst possibly due to old inflammatory pathology.

Postoperative period was uneventful. Patient was followed up for 6 months. Review USG was done – right kidney returned to normal size with disappearance of hydro Ureter. No recurrence or any other abnormality was detected.

Discussion

Mesenteric cysts are rare intra abdominal masses generally omitted or briefly reported in textbooks. Incidences are

Fig. 1 Specimen cyst covering almost whole of abdomen

Fig. 2 Histopathology of the specimen

< 1 in 1,00,000 hospital admission and 1 in 35,000 pediatric admission [3]. They may be localized all over the mesentery from duodenum to rectum and may extend from the base of mesentery into the retro peritoneum. It is mostly found in ileum and right colon mesentery (>70%) [4].

Histopathology classification are (1) Cyst of lymphatic origin – lymphatic (hilar cyst) and lymphangioma. (2) Cyst of mesothelial origin – benign or malignant mesothelial cyst (3) Enteric cyst or enteric duplication cyst. (4) Cyst of urogenital origin (5) Dermoid cysts and (6) Pseudo cyst – traumatic or infectious etiology [5].

USG, CT and Magnetic resonance imaging (MRI) scanning have been used for Pre operative diagnosis [6]. However exact differentiation is only made post operatively by histopathology. Children are most likely to present with acute symptoms including abdominal pain, anorexia and vomiting. Additionally, these cysts may be the focus for intestinal obstruction or volvulus with subsequent intestinal necrosis [7].

Mesenteric cysts are commonly unilocular and filled with serous fluid. Histopathologic feature include a cuboidal or columnar lining with microvilli and smooth muscle element in the wall. Although pseudo mesenteric cyst lack these feature. Neither a specific endothelial lining nor proliferation lining was present in pseudomesenteric cyst. Treatment included complete surgical excision. Laparoscopic excision is also possible and is reported [8].

Marsupialisation, internal drainage or aspiration is sub optimal treatment and second laparotomy is required for recurrence. Malignant degeneration is rare [9].

Conflict of interest The authors do not have any disclosable interest. The corresponding author is the Joint Editor of the Indian Journal of Surgery, but he was not involved in the review process.

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