A Masquerading Mesenteric Cyst

Murali Krishna* and Manoj Kumar

Department of Surgery, Armed Forces Medical College, Pune, India

Abstract

Intraabdominal pleomorphic sarcoma are rare entities. There is varied presentation which can often result in diagnostic dilemma. With the new classification of soft tissue sarcomas coming in the diagnosis of undifferentiated pleomorphic sarcoma (UPS) becomes more difficult. Often immunohistochemistry gives a clue in confirming the diagnosis. Here we present a unique case of UPS which presented as a mesenteric cyst.

Keywords: Sarcoma; Immunohistochemistry; Mesenteric cysts

Introduction

A Mesenteric cyst are rare abdominal tumours with an incidence quoted in literature of 1 in 105000 to 250000 hospitalized adult patients [1]. The origin of cyst can be lymphatic, mesothelial, enteric, urogenital, or dermoid. Symptomatic presentation of mesenteric cyst in adult patients is rare. Moreover, presentation of a soft tissue tumour in mesentery is itself rare and presentation mimicking a mesenteric cyst has not yet been reported in the literature.

Case Report

A 70-year-old male, presented with complaints of insidious onset dull aching pain in paraumbilical region for past 6 months and gradually progressive lump abdomen for past 4 months. Associated with history of significant weight loss and anorexia. Patient is also a known case of diabetes mellitus, psoriasis, and coronary artery disease. On examination, the patients had extensive psoriatic lesions all over the body. There was an 8 cm × 8 cm mobile, well defined lump noticed in the central abdomen with smooth surface and well defined borders.

Routine haematological and biochemical investigations were within normal limit. CECT abdomen showed 10 × 10 × 12 cm predominantly cystic well defined lesion in small bowel mesentery with irregular mural enhancement at posterior and superior margin of the lesion, displacing the bowel loops and abutting the umbilicus antero-inferiorly and extending to upper part of pelvis (Figures 1 and 2).

Patient underwent laparoscopic assisted mesenteric cyst excision. During surgery, a thick-walled cyst was seen likely to be arising from the transverse mesocolon. The cyst contained clear viscous fluid amounting to almost 90 per cent of its volume and the thickened wall comprised of the rest 10% (Figures 3 and 4). Post-operative course was uneventful.

Figure 1: Clinical CECT abdomen showed predominantly cystic at posterior margin of the lesion.

Figure 2: Clinical CECT abdomen showed superior margin of the lesion, displacing the bowel loops and abutting the umbilicus antero-inferiorly and extending to upper part of pelvis.

Figure 3: Laparoscopic assisted mesenteric cyst excision.

Histopathological examination of the cyst revealed it to be an unclassified pleomorphic sarcoma of mesentery. IHC was positive for Vimentin and CD 68 and negative for CD117, CK, SMA, CD-34, Factor VIII, Calretinin, HMB-45, NSE, Sytnaptophysin, Chromogranin, LCA and ALK.

***Corresponding author:** Murali Krishna, Senior Resident, Department of Surgery, Armed Forces Medical College, Pune, India, Tel: 2247 503495; E-mail: murali276@yahoo.com

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Figure 4: Cyst contained clear viscous fluid amounting to almost 90 per cent of its volume and the thickened wall comprised of the rest 10 percent.

Figure 5: Histopathological examination of the cyst revealed pleomorphic sarcoma of mesentery.

Figure 6: The histopathological examination showed solid thin branching vessels and pleomorphic nucleoli.

The histopathological examination showed solid areas composed of sheets of cells traversed by thin branching vessels. Scattered amidst are few larger cells with pleomorphic nucleoli. Few bizarre nuclei, mitoses and apoptosis were also noted (Figures 5 and 6).

Patient has been on regular follow up and is presently asymptomatic one year following the procedure.

Discussion

A mesenteric cyst is defined as any cyst located within the mesentery and has an endothelial or mesothelial lining. It may or may not extend into the retroperitoneum and can arise anywhere from duodenum to rectum [2]. In a review of 162 patients, small bowel mesentery was the most common site followed by large bowel mesentery [3]. The most commonly used classification of mesenteric cyst is based on histopathological features. This include six groups namely- 1) cysts of lymphatic origin-lymphatic (hilar cysts) and lymphangiomas; 2) cysts of mesothelial origin-benign or malignant mesothelial cysts; 3) enteric cysts; 4) cysts of urogenital origin; 5) dermoid cysts; and 6) pseudocysts-infectious or traumatic aetiology [4]. The incidence

of mesenteric tumours ranges from 1 per 200,000 to 350,000 and the cystic presentation account for 40% to 60% [1].

Undifferentiated pleomorphic sarcoma (UPS) are commonly seen as arising from extremities of elderly individuals with more predilections in males. The next common area is trunk and subcutaneous tissue [5]. Mesentery is a rare and unusual location for primary sarcoma. The commonly seen neoplasm involving the mesentery are desmoids tumor, GIST, and leiomyomas [6,7]. A review of recent published literature shows that there are varied presentations for UPS. Some of the more confusing pictures include presentation as colonic carcinoma and presentation as a hepatic cyst [8,9]. Presentation mimicking a mesenteric cyst has never been reported.

Patients presenting with mesenteric cyst usually are asymptomatic. Symptoms usually occur once the cyst increases in size and include pain, nausea and vomiting, constipation and diarrhoea [10]. The classical sign of movement confirms clinical diagnosis of mesenteric cyst perpendicular to the direction of attachment of root of mesentery. Diagnosis can be confirmed using ultrasonography and further delineation can be achieved with CT/MRI. The treatment of choice remains wide local excision.

In cases of diagnostic dilemma, immuno-histochemistry often gives a clue. CD 68 is often detected to be positive in MFH and is usually characteristic of giant cells. Vimentin positivity is also commonly detected in tumours of soft tissue origin. Combination of vimentin and CD 68 positivity has been reported in literature as characteristic of pleomorphic cells. Also, combinations of these markers are seen in some rare tumours like giant cell tumour of soft tissue and plexiform fibrohistiocytic tumor [11-15].

Conclusion

TAS-A recent study on 132 patients with a UPS of the extremities concluded that the significant prognostic factors for the outcome after surgical treatment were background (primary or recurrent), histologic grade, tumor size, and surgical margin [16].

Overall, UPS has a poor prognosis and intra-abdominal UPS are known to be an aggressive tumour. The total excision of the cyst may be the factor leading to better outcome in this case regardless of the multiple co-morbidities and geriatric age group.

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