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Case Report

A Case of Rare Mesenteric Cyst: Case Report

B.Ananda Rama Rao[1], Siddartha Reddy M[2], Vinay Kumar[2]

[1] Professor, [2]Junior Residents,
Department of General Surgery, SVS Medical College, Mahabubnagar, Telangana, India - 509 002.

Corresponding Author: B.Ananda Rama Rao

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ABSTRACT

Mesenteric cyst is one of the rare abdominal tumours, with approximately 820 cases reported since 1507. The incidence varies from 1 per 100,000 to 250,000 admissions. The lack of characteristic clinical features and radiological signs may present great diagnostic difficulties. The cyst may present in one of three ways: (i) non-specific abdominal features; (ii) an incidental finding; or (iii) an acute abdomen. Abdominal pain is the major presenting symptom. Abdominal mass is found in more than 50% of cases and 40% of cases are discovered incidentally. More than one aetiological mechanism is probably involved in the development of mesenteric cysts. Mesenteric cysts have been reported from the duodenum to the rectal mesentery but are most commonly located in the ileal mesentery. Malignant cysts occur in less than 3% of cases. Enucleation of the cyst is the treatment of choice. Knowledge of these tumours is important due to the various complications associated with suboptimal surgical management. Here is a case of a young female presenting with a painless abdominal mass.

Keywords: Mesenteric cyst abdominal swelling Ileal mesentery.

INTRODUCTION

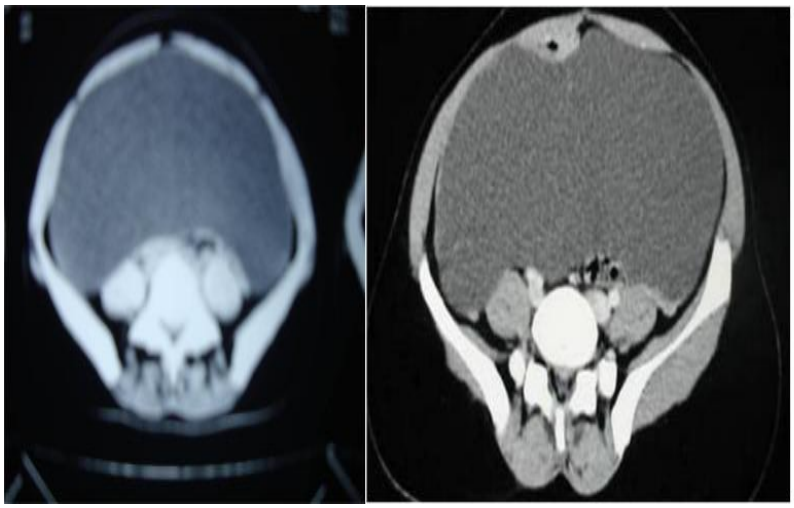
Italian anatomist Benevenni first described this entity performing an autopsy in an 8-year-old boy in 1507, while Rokitansky published the first accurate description of a chylous mesenteric cyst in 1842 and Tillaux performed the first successful surgery for a cystic mass in the mesentery in 1880.3 A mesenteric cyst is defined as any cyst located in the mesentery; it may or may not extend into the retro peritoneum, which has a recognizable lining of endothelium or mesothelial cell. Mesenteric cyst can occur anywhere in the mesentery of gastrointestinal tract from duodenum to the lymphatic or venous systems or blockage of the lymphatic's as a result of trauma, infection, and neoplasm are said to be contributing factors, Mesenteric cyst may occur in patients of any age.

CASE REPORT

An 18 year old female presented with chief complaints of painless swelling in the abdomen since 1 year which was gradual in onset and progressive in nature. No history of fever, vomiting, jaundice, malena, haematemesis, bleeding per rectum, dysuria, haematuria with a normal menstrual history. No history of similar swellings in the past or in the family. On examination a single horizontally oval shaped intra abdominal

lump of size 30*30 cms occupying whole of the abdomen with a smooth surface and well defined margins, cystic consistency, non tender and mobile only across the mesentery(perpendicular) and a restricted mobility in the direction of mesentery. Laboratory investigations were within normal limits. Ultrasound abdomen revealed large 30*30 cms intra abdominal cyst, No septations, No solid elements & Free from bladder. Plain CT scan revealed large mesenteric cyst occupying the whole abdomen. CECT scan abdomen also shows a simple cystic swelling occupying whole of the abdomen.

Explorative laparotomy revealed a huge mesenteric cystic swelling in the mesentery of ileum, which could be separated easily from the mesentery and traced towards the pedicle of left ovary. Cyst along with the left ovary and fallopian tube excised after securing the pedicle. Viability of the ileum checked wherein no duskiness could be seen.



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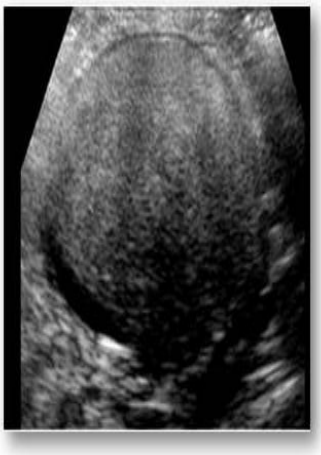

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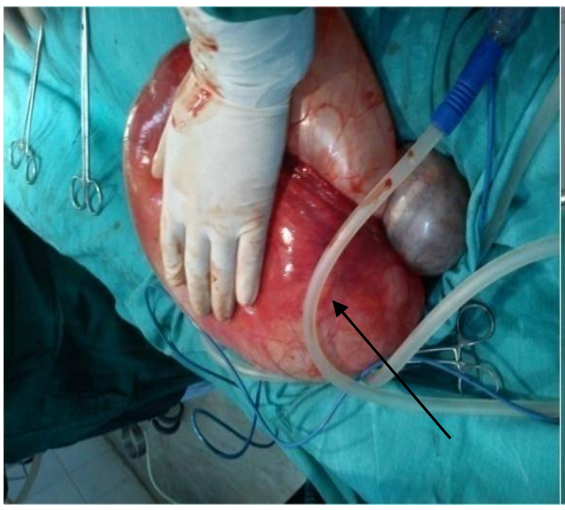
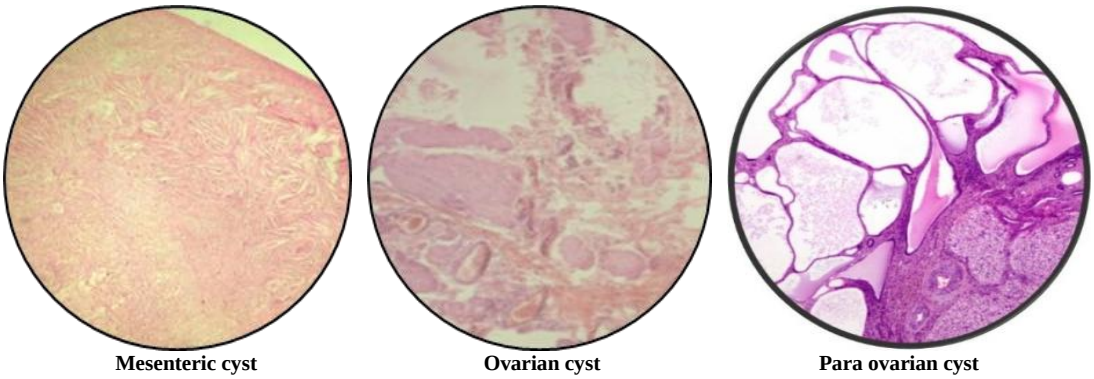


Mesenteric cyst

Ovarian cyst



Mesenteric cyst Ovarian cyst Para ovarian cyst

Post operatively on examination of specimen mesenteric cyst could be separated from an ovarian cyst and Para ovarian cyst which was not possible intra operatively. Microscopic examination substantiated our clinical and intra operative diagnosis of Chylo mesenteric cyst lined by cuboidal epithelium without ant malignant features, ovarian and Para ovarian cyst.

Post operative period was uneventful. Regular follow up of patient for 1 year showed no recurrence and patient was symptom free.

DISCUSSION

Primary mesenteric cysts are rare abdominal finding. This entity was first described in 1507 by Benevieni, Florentine anatomist, during the autopsy on an 8-year-old girl. [1,3] However, it was not until 1842 when Rokitansky gave the first description of a chylous mesenteric cyst. [2] In 1880 Tillaux performed the first successful resection on a cystic mesenteric tumor[2]. After him, Pean reported the first marsupialisation of a mesenteric cyst in 1883. Even today the literature reports on primary cystic tumours of mesentery are relatively rare. This lack of clinical experience in treatment of this rare surgical entity is probably the cause of controversies about its etio-pathogenesis and his to pathological classification. Mesenteric cysts occur with very small incidence, mainly later in life (fifth decade) and with female predominance in occurrence. [4,5] The exception are cystic lymphangiomas which mostly occur in the first decade of life (up to 12 years of age), with incidence of 1/20000 hospitalized children and with male predominance. [2,5] Mesenteric cysts are mostly asymptomatic [6] and if present symptoms are quite unspecific.

Mesenteric cysts are one of the rarest intra-abdominal tumors. [7] The reported incidence ranges from 1/20,000 to 1/250,000 admissions to hospital. [8] Cysts are most commonly located within the mesentery of the ileum, followed by the omentum, mesocolon and retroperitoneum. The occurrence of multiple cysts is not uncommon. Cysts can be unilocular or multilocular, and may contain chylous, serous or infrequently hemorrhagic fluid. Mesenteric cysts filled with milk of calcium have been described, [9] and there have also been rare reports of gas accumulation within cysts. [10] The cysts can remain asymptomatic and therefore grow to giant proportions, as illustrated in the present case. They may be mistaken for ascites on physical examination and abdominal imaging studies. [11] Patients may complain of chronic abdominal complaints, or exceptionally present with an acute abdomen. Complications include torsion, infarction, volvulus formation, perforation, infection, anaemia from intracystic haemorrhage, intestinal obstruction and obstructive uropathy. [12-14] Children are

most likely to develop life-threatening complications. [15,16] Mesenteric cysts can also develop into either carcinoma or sarcoma, [17,18] Cystic abdominal masses are easily evaluated radiologically, obviating the need for more invasive studies. Information regarding their location, size, origin and internal structure may aid in the differential diagnosis. [19,20] Simple mesenteric cysts have a fibrous wall that is devoid of a defined muscular layer. They are lined by an attenuated layer of epithelium. Those without an epithelial lining are thought to be of traumatic origin. Calcification and reactive, chronic inflammatory changes may be present within their fibrous walls.

Mesenteric cyst should be evaluated with complete history, clinical examination, blood investigations and radiological investigations (X-ray abdomen erect, ultrasound abdomen (USG) and computed tomography (CT) scan in selected cases) to reach a provisional diagnosis. The diagnosis is proven on laparotomy and has to be histologically confirmed. Secondary complications associated with mesenteric cysts include volvulus, spillage of infective fluid, herniation of bowel into an abdominal defect, and obstruction. [21]

Surgery is the mainstay of treatment, and the only definitive diagnostic modality for simple mesenteric cysts. [22] Aspiration of the cyst alone should not be performed. Complete enucleation of cysts is considered to be the procedure of choice, to prevent recurrence and possible malignant transformation. Segmental intestinal resection may be necessary if the adjacent bowel has a compromised blood supply. For multiple cysts or those technically difficult to excise completely, such as those located within the retroperitoneum, marsupialization with careful follow-up may be necessary. Finally, there are reports of successful laparoscopic resection of mesenteric cysts. [23]

CONCLUSION

Mesenteric cysts, however, are quite rare tumours of the mesentery, but one must always keep suspicion in mind regarding the existence of this entity and should be considered in a differential diagnosis of abdominal cystic lesions. Laparoscopic excision of a mesenteric cyst is possible and should be considered as the treatment of choice.

Conflict Of Interest Statement: The authors do not have any conflict of interest.

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