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Giant chylolymphatic mesenteric cyst and its successful enucleation: A case report

Yousuf Al Booq, Syed S. Hussain*, Mohamed Elmy

Surgery Royal Commission Medical Center, Yanbu Al Sinayah, Saudi Arabia

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ABSTRACT

INTRODUCTION: Cysts of the mesentery are among surgical rarities. The clinical presentation is not characteristic and in addition, the preoperative imaging although suggestive is not diagnostic in this case ultrasound and CTscan was consistent with giant mesenteric cyst. In most cases, the diagnosis is confirmed after surgical exploration.

PRESENTATION OF CASE: A 42 yrs old male patient on exploratory laparotomy had a 14cm×10cm×10 cm cysts which was seen arising from the mesentery ofdistal jejunum 80cm from the duodeno jejunal flexure. The cyst was enucleated successfully from themesentery without entailing resection. The cyst contained milky white fluid consistent with a chylolymphatic cyst. The diagnosis was confirmed on histopathology which revealed a cyst wall with lymphoidaggregates. After 3 years of follow-up, the patient is doing well and there is no evidence of recurrence.

DISCUSSION: The cysts may be asymptomatic or maymanifest with abdominal pain, distension lump or intestinal obstruction. Our patient was symptomatic with mild and long standing abdominal pain. The definitive diagnosis of these lesions is difficult prior to surgical exploration as there are no pathognomonic symptoms or characteristic imaging findings.

CONCLUSION: Cysts of the mesentery are among surgical rarities. In most of the cases the diagnosis is confirmed after surgical exploration and removal of thecyst. We would like to emphasize the importance of successful enucleation of the cyst irrespective of its size due to its independent blood supply as opposed to enterogenous cyst which requires bowel resection and anastomosis.

1. Introduction

Cysts of the mesentery are among surgical rarities. The clinical presentation is not characteristic and in addition, the preoperative imaging although suggestive is not diagnostic. In most cases, the diagnosis is confirmed after surgical exploration and removal of the cyst. Few cases of huge chylolymphatic mesenteric cyst presenting in the sixth decade of life has been reported in the literature review. In this case we describe a huge chylolymphatic cyst and its successful enucleation.

2. Presentation of case

A 42-year-old man presented with abdominal pain of 5 months duration. Physical examination revealed a huge intraabdominal mass filling the whole lower abdomen upto the supraumbilical region. The whole abdomen had cautery marks suggesting its long standing presence. His biochemical parameters including serum amylase and lipase were in the normal range. Ultrasound revealed a hypoechoic lesion measuring 14cmx10cmx10 cm anterior to the left kidney. CT scan (Fig. 1) revealed cyst with fluid density. . . With a provisional diagnosis of a mesenteric cyst, surgical exploration was done which revealed a huge cyst 80 cm distal to the dudenojejunal flexure abutting the jejunal mesentery (Fig. 2). The cyst contained milky white fluid consistent with chylolymphatic cyst. The cyst was successfully enucleated in toto (Fig. 3) The diagnosis was confirmed on histopathology which revealed a cyst wall lined with endothelium having lymphoid aggregates and foam cells (Fig. 4). After three years of follow up, the patient is doing well and is symptom free without any recurrence.

3. Discussion

Mesenteric cysts were first described in the 16th century.[1] They are one of the rarest abdominal tumors and the incidence varies from 1 per 100,000 to 250,000 admissions.[2] Among these uncommon cystic lesions of the mesentery, chylolymphatic cysts are extremely rare.[3] These cysts arise in the sequestrated lymphatic channels or ectopic lymphatic tissue in the small bowel mesentery and enlarge by accumulating both lymph and chyle. The accumulation of lymph and chyle is thought to result from an imbalance between the inflow and outflow of fluid across these channels.[4] The

* Corresponding author at: Armed Forces Hospital, Southern Region, PO Box 61961, Khamis Mushayt, Saudi Arabia. Tel.: +966 502550547; fax: +966 1725700001.
E-mail addresses: ybooq2010@Gmail.Com (Y. Al Booq), syedhussain91@hotmail.com, hussainsyedfirstname@yahoo.com (S.S. Hussain).

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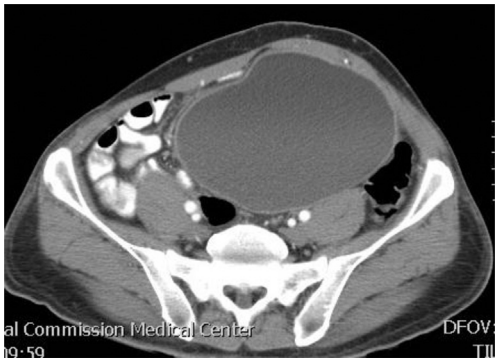

Fig. 1. CT scan showing giant chylolymphatic cyst.

Fig. 2. Chylolymphatic mesenteric cyst abutting the jejunal mesentery.

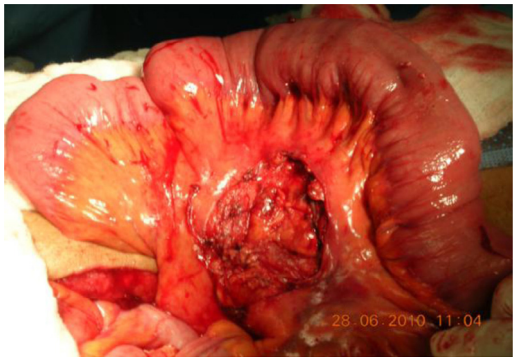

Fig. 3. Jejunal mesentery raw area after successful enucleation of the cyst.

cysts may be asymptomatic or may manifest with abdominal pain, distension lump or intestinal obstruction.[5] Our patient was symptomatic with mild and long standing abdominal pain. The definitive diagnosis of these lesions is difficult prior to surgical exploration as there are no pathognomonic symptoms or characteristic imaging findings. Abdominal radiographs are usually non-contributory; however, it may reveal dilated bowel loops with air fluid in the very rare patients with intestinal obstruction which may result from compression of the adjacent bowel or by mesenteric volvulus. As in this case many chylolymphatic cysts can be enucleated in toto. When after aspiration of about half the contents of the cyst, the major portion of the cyst has been dissected free, but one portion abutting on the intestine or a major blood vessel seems too dangerous to remove, this portion can be left attached and its lining destroyed by careful diathermy.

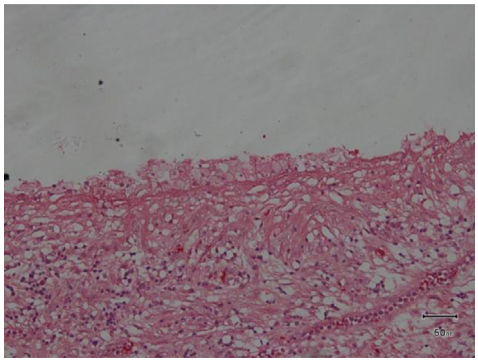

Fig. 4. Endothelial lining of the cyst containing lymphoid aggregates and foam cells.

4. Conclusion

Cysts of the mesentery are among surgical rarities. The clinical presentation is not characteristic and in addition the preoperative imaging although suggestive is not diagnostic.In most of the cases the diagnosis is confirmed after surgical exploration and removal of the cyst. We would like to emphasize the importance of successful enucleation of the cyst irrespective of its size due to its independent blood supply as opposed to enterogenous cyst which requires bowel resection and anastomosis. Even if the major portion of the cyst has been dissected free and one portion abutting on the intestine or a major blood vessel seems too dangerous to remove, can be left attached and its lining mesentery destroyed by careful diathermy.

Conflict of interest

The authors declare that they have no competing interests.

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Ethical approval

Written informed consent was obtained from the patients for publication of this case report and its accompanied images.

Author contributions

Dr. Syed Shamshad Hussain – data collection.
Dr. Yousuf Al Booq – data analysis and writing.
Dr. Mohamed Elmy – study design.

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