

Case Report

A rare case of tuberculous mesenteric cyst

Ajay Ashok Gujar*, Nikhil Rane, Ravindra Ambardekar,
Yashvi Sharma, Makarand Karpe, Sheena Ali

Department of General Surgery, D Y Patil Medical College and Hospital, Nerul, Navi Mumbai, Maharashtra, India

Received: 08 September 2015

Revised: 08 October 2015

Accepted: 09 October 2015

*Correspondence:

Dr. Ajay Ashok Gujar,

E-mail: drgujars@yahoo.com

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ABSTRACT

We report a case of 17 year old female weighing 85 kg with chronic abdominal pain. Radiological imaging techniques revealed it as an enteric duplication cyst or mesenteric cyst. Diagnostic laparoscopy confirmed the cyst originating from mesentery. After laparoscopic excision of this cyst histopathology report was unusual, as a tuberculous mesenteric cyst.

Keywords: Mesenteric cyst, Enteric duplication cyst, Tuberculosis

INTRODUCTION

Mesenteric cyst is difficult to diagnose due to its rarity, lack of symptoms and its different locations and size. Mesenteric cyst described by Benevieni, a Florentine anatomist in 1507, arise from duodenal to sigmoid colon mesentery. It is a rare cause of abdominal pain. It is found in 1 in 10000 hospital admissions of abdominal pain.¹⁻³ The etiology of mesenteric cyst is not yet well determined, but failure of the lymph nodes to communicate with the lymphatic or venous system or blockage of the lymphatic system as a result of trauma, infection and neoplasm are said to be contributing factors.¹⁻⁴ Differential diagnosis includes ovarian, duplication or pseudocysts. Careful radiological imaging interpretation is important for preoperative planning. Complete excision by laparoscopic or open technique is gold standard for treatment of mesenteric cyst.

CASE REPORT

This is a case report of 17 years old female patient weighing 85 kg, presented with complaint of chronic pain in abdomen at umbilical region which was increased in

intensity for last two weeks. No other generalized symptoms.

On clinical examination she had tenderness at paraumbilical region. We could not palpate any lump due to her obesity.

Her ultrasonography findings was suggestive of intraabdominal cyst either originating from intestine or mesentery.

On contrast CT scan her diagnosis was 8cmX8cm cyst, either enteric duplication cyst or mesenteric cyst or enteric duplication cyst.

As her diagnosis was not confirmed by radiological techniques we decided to do laparoscopy. We put 30 degree 10mm scope through umbilical port. As soon as we introduced the scope inside the abdomen we found a large cyst covered by omentum. We separated omentum and found cyst arising from ileal mesentery with good vascular supply over the wall of the cyst. Rest of the bowels, mesentery, peritoneum, solid organs and pelvic organs were normal. There was no evidence of any mesenteric lymphadenopathy.

As patient was obese we decided to put two more 5mm extra ports to excise the cyst. With help of bipolar electrocautery we coagulated all vessels over cyst and separated the cyst from the mesentery. After excision we took small incision over paraumbilical region and removed the cyst and close the mesenteric rent.

On gross examination cyst was thick walled and containing caseous material like a cold abscess or a dermoid cyst.

On histopathology it was showing multiple tuberculous granulomas within the cyst wall and labeled as tuberculous mesenteric cyst.

Caseating material was positive for gene expert of mycobacterium tuberculosis. Caseating material was also sent for tuberculous organism culture and drug sensitivity test. Culture grow mycobacterium tuberculosis organism which was sensitive to streptomycine, rifampicin, isoniazide, ethambutol and pyrazinamide. We started anti tuberculous treatment to our patient.



Figure 3: Laparoscopic diagnosis and excision of mesenteric cyst.



Figure 4: Laparoscopic excision of cyst.



Figure 1: CT scan showing mesenteric cyst or enteric duplex cyst.



Figure 5: Gross cyst after excision.

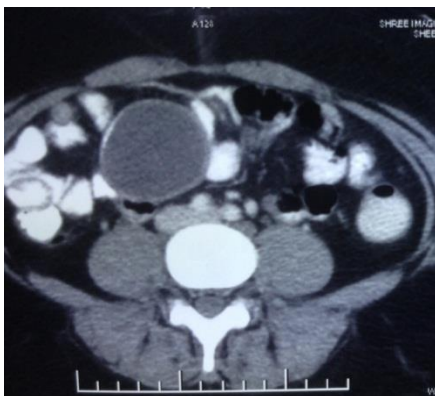


Figure 2: CT scan showing mesenteric cyst or enteric duplex cyst.

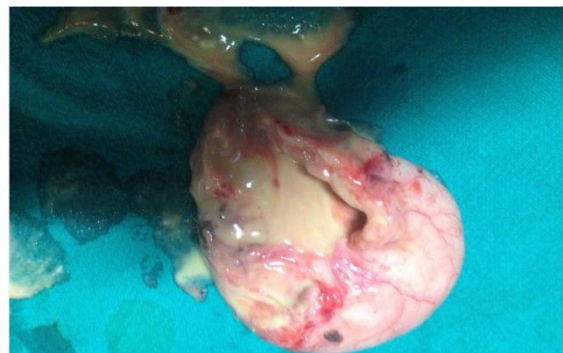


Figure 6: Gross cyst after excision showing caseating material.

DISCUSSION

As proposed by Gross,⁵ mesenteric cysts are thought to represent benign proliferation of ectopic lymphatics that lack communication with the normal lymphatic system. Mesenteric cysts can occur anywhere in the mesentery of the gastrointestinal tract from the duodenum to the rectum, and they may extend from the base of mesentery into the retroperitoneum.⁵ They occur with a frequency of 60% in the small intestine and 40% in the colon. Mesenteric cysts being twice common in women than in men. Chylolymphatic mesenteric cysts are the most common arising due to sequestration of lymphatic ducts during development. These cysts contain clear lymph or less frequently with chyle varying in consistency from watered milk to cream. These cysts vary in sizes, occasionally attaining huge sizes,⁶ are mostly unilocular. These cysts have a blood supply independent of that of the adjacent intestine and hence enucleation is possible without the need for resection of the gut. Tuberculous mesenteric cysts on the other hand are usually multilocular or multiple with associated mesenteric lymphadenopathy. The rarity of such mesenteric cyst makes them difficult to diagnose clinically.

CONCLUSION

Mesenteric cysts are rare and asymptomatic in majority of cases. Tuberculous mesenteric cyst without abdominal tuberculosis or lymphadenopathy is rarest condition.⁷ No case of tuberculous mesenteric cyst without abdominal tuberculosis has been registered in literature at yet.

Contrast CT scan is diagnostic for most of mesenteric cyst, but MRI gives perfect anatomic location and guidance for aspiration.⁸

Diagnostic followed by therapeutic laparoscopy is the choice of approach in today's era for mesenteric cyst. Most of the time imaging techniques do not give confirmative diagnosis, in that case laparoscopy avoids bigger incisions and post-operative morbidity, especially in obese patient. Even if we do not continue laparoscopy for surgery, it gives us a perfect diagnosis and to take decision for site for incision.

Treatment is indicated for symptoms. While there is lack of evidence correlating size with complications, it is likely that increasing size will increase the risk of complications.⁹

Complete excision by laparoscopic or open approach is gold standard of treatment and marsupialisation causes higher recurrence rate.¹⁰

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

REFERENCES

1. Walker AR, Putnam TC. Omental, mesenteric, and retroperitoneal cysts: a clinical study of 33 new cases. *Ann Surg.* 1973;178(1):13-9.
2. Polat C, Ozamak ID, Ycel T, Ozmen V. Laparoscopic resection of giant mesenteric cyst. *J Laparoendosc Adv Surg Tech A.* 2000;10(6):337-9.
3. Kurtz RJ, Heimann TM, Holt J, Beck AR. Mesenteric and retroperitoneal cysts. *Ann Surg.* 1986;203(1):109-12.
4. Ros PR, Olmsted WW, Moser RP Jr, Dachman AH, Hjermsstad BH, Sobin LH. Mesenteric and omental cysts: histologic classification with imaging correlation. *Radiology.* 1987;164(2):327-32.
5. Gross RE. Mesenteric cysts. In: Gross RE, eds. *The Surgery of Infancy and Childhood.* 1st ed. Philadelphia, Pa: WB Saunders Co; 1953: 377-383.
6. Egozi EL, Ricketts RR. Mesenteric and omental cysts in children. *Am Surg.* 1997;63(3): 287-90.
7. Yesidag E, Sahin I, Tekant G, Senyuz OF, Emir H. A case of mesenteric cysts caused by abdominal tuberculosis. *Eur J Pediatr Surg.* 2000 Dec;10(6):402-3.
8. Bhandarwar AH, Tayade MB, Borisa AD, Kasat GV. Laparoscopic excision of mesenteric cyst of sigmoid mesocolon. *J Minim Access Surg.* 2013;9(1):37-9.
9. Nam SH, Kim DY, Kim SC, Kim IK. The surgical experience for retroperitoneal, mesenteric and omental cyst in children. *J Korean Surg Soc.* 2012;83:102-6.
10. Zeiler M, Santarelli S, Cangiotti AM, Agostinelli RM, Monteburini T, Marinelli R, et al. Giant mesenteric cyst of mesothelial origin in a haemodialysis patient with previous peritoneal dialysis therapy. *Nephrol Dial Transplant.* 2010;25:1004-6.

Cite this article as: Gujar AA, Rane N, Ambardekar R, Sharma Y, Karpe M, Ali S. A rare case of tuberculous mesenteric cyst. *Int J Res Med Sci* 2015;3:3424-6.