Chylolymphatic cyst of the greater omentum presenting as abdominoscrotal swelling in a child

Kangjam Sholay Meitei, Sinam Rajendra Singh, Khumukcham Somarendra Singh
Department of Urology, Regional Institute of Medical Sciences, Lamphelpat, Imphal, Manipur, India

ABSTRACT

Omental cyst are rare abdominal lesions and are difficult to diagnose. They are detected incidentally during imaging studies performed for unrelated reasons. In children, it may present as an acute abdomen due to intestinal obstruction or painless abdominal swelling. Imaging is helpful in excluding other causes of lump abdomen. We encountered a case of giant omental cyst presenting with abdominoscrotal swelling in a child. The patient underwent laparotomy and the diagnosis of omental cyst was established by intraoperative findings. Thus complete excision of the cyst was performed. The diagnosis was confirmed by pathological examination.

Key words: Abdominal swelling, abdominoscrotal swelling, child, chylolymphatic cyst, omental cyst

INTRODUCTION

Omental cyst are rare abdominal lesions and are difficult to diagnose. They are detected incidentally during imaging studies performed for unrelated reasons. In children, it may present as an acute abdomen due to intestinal obstruction or painless abdominal swelling. We present a case of giant omental cyst presenting with abdominoscrotal swelling in a child.

CASE REPORT

A 5-year-old male child presented with left scrotal swelling and abdominal distension. His mother had noted a painless left scrotal swelling since birth and it was gradually increasing in size. She also noticed increasing abdominal girth for approximately 2 years. There was no history of trauma. Growth and development were otherwise normal, as were his appetite and feeding habits. Bowel and micturition habits were also normal. The family history was unremarkable. The patient was not on any medication and had no known allergy. On examination, his abdomen was hugely distended. A soft, cystic lump was palpable involving left and central part of the abdomen. Shifting dullness was absent. The scrotum was hugely enlarged and right testis could be felt separately from the swelling but not the left testis. It was not possible to get above the swelling on the left side. The swelling was oblong in shape, cystic, irreducible, and nontranslucent. Cross fluctuation with abdominal lump was absent.

Routine blood tests were within normal limits. An ultrasound examination was performed, and it showed septated ascites and left hydrocele. Contrast Enhanched Computed Tomography showed huge septated cystic lesion [Figure 1] filling whole of the left and central part of the abdominal cavity pushing away the bowel anteriorly and posteriorly. The scrotal and abdominal swellings communicated in the left inguinal region. Both the testes were visible in the scrotum. With these clinical and imaging findings, a provisional diagnosis of abdominoscrotal lymphatic cyst was made.

The patient underwent laparotomy through an oblique left lower abdominal incision. Initially, the retroperitoneal space was explored. As we could not see the swelling, the peritoneum was opened to find a huge, soft cystic lesion [Figure 2] arising from the greater omentum was identified. The cyst was opened and drained thin hemorrhagic fluid. It was multilocular and the lower pole of the cyst was seen going inside the left internal inguinal

For correspondence: Dr. Kangjam Sholay Meitei, Department of Urology, Regional Institute of Medical Sciences, Lamphelpat, Imphal - 795 004, India. E-mail: sholay_meitei6@yahoo.co.in
ring. With slight traction, the part of the cystic swelling lying in the scrotum could be delivered. Approximately, 900 mL of fluid was drained. The cyst was excised completely along with adjacent omentum. The internal inguinal ring was closed with a purse string suture. A drain was placed in the peritoneal cavity and the abdomen was closed in layers. Postoperative period was uneventful. The abdominal drain was removed on the 2nd postoperative day and he was discharged on the 3rd postoperative day. Histopathological examination of the cyst demonstrated features of chylolymphatic cyst [Figure 3].

DISCUSSION

Mesenteric and omental cysts are thought to represent benign proliferations of ectopic lymphatics that lack communication with the normal lymphatic system that failed to communicate normally with the lymphatic system.[1] Other etiologic theories include (1) failure of the embryonic channels to join the venous system, (2) failure of the leaves of the mesentery to fuse, (3) trauma, (4) neoplasm, and (5) degeneration of lymph nodes.[2] Omental cysts are rare with only about 150 cases reported. [3] Gairdner published the report of an omental cyst in 1852.[4]

These cysts are present in the lesser or greater omentum and are lined by endothelium. Our patient had a large cyst which developed on a pedicle from the greater omentum. Omental cysts can be simple or multiple, unilocular or multilocular, and they may contain hemorrhagic, serous, chylous, or infected fluid. They may an incidental finding during laparotomy for other conditions or may manifest as a chronic or acute abdomen. The mass may be huge, simulating ascites.[5] The most common physical finding in a purely abdominal omental cyst is a compressible abdominal mass which is freely mobile.[6] Approximately, 95% of these occur in neck or axilla; scrotum, retroperitoneum, gluteal region, mediastinum, groin, pelvis, mesentery, omentum, and spleen are very rare sites.[7] This case is unique in that an omental cyst presented as an abdominal swelling and the contents of a left inguinal hernia.

Ultrasonography is often the initial imaging modality of choice for making the diagnosis.[8,9] It reveals fluid-filled cystic structures, commonly with thin internal septa and sometimes with internal echoes from debris, hemorrhage, or infection.[1] Abdominal CT scanning adds minimal additional information, although it can confirm the organ of origin of the cyst such as the kidney, pancreas, and ovary.[1] Complete excision of the omental cyst is the treatment of choice. It is rarely necessary to resect the bowel and recurrence is rare. Malignant change of omental cysts is rare.[10] Laparoscopic management of such cysts has been advocated but there is a risk of spillage from the cyst.[11] We planned open surgery due to the very large size and both abdominal and scrotal components. Long-term results for simple cyst excision are favorable.[12]

REFERENCES

1. Kumar S, Agrawal N, Khanna R, Khanna AK. Giant lymphatic cyst of omentum: A case report. Cases J 2009;2:23.
2. Egozi EI, Ricketts RR. Mesenteric and omental cysts in children. Am Surg 1997;63:287-90.
3. Vanek VW, Phillips AK. Retroperitoneal, mesenteric, and omental cysts. Arch Surg 1984;119:838-42.
4. Gairdner WT. A remarkable cyst in the omentum. Trans Pathol Soc Lond 1852;3:1851.
5. Karaosmanog ID, O zhan OS, Yu CC, Hakan ZO. Huge omental cyst simulating ascites. Eur J Radiol Extra 2005;54:55-7.
6. Kuriansky J, Bar-Dayan A, Shabtai M, Barshach I, Rosin D, Ayalon A. Laparoscopic resection of huge omental cyst. J Laparoendosc Adv Surg Tech A 2000;10:283-5.
7. Singla SL, Rattan KN, Singh S. Cystic hygroma of the gluteal region. Indian J Pediatr 2000;67:779-80.
8. Uramatsu M, Saida Y, Nagao J, Takase M, Sai K, Okumura C, et al. Omental cyst: Report of a case. Surg Today 2001;31:1104-6.
9. Nett MH, Vo NJ, Chapman T. Large omental cyst. Radiol Case Rep (RCR) 2010;5:388.
10. Hebra A, Brown MF, McGeehin KM, Ross AJ 3rd. Mesenteric, omental, and retroperitoneal cysts in children: A clinical study of 22 cases. South Med J 1993;86:173-6.
11. Conzo G, Vacca R, Grazia Esposito M, Brancaccio U, Celsi S, Livrea A. Laparoscopic treatment of an omental cyst: A case report and review of the literature. Surg Laparosc Endosc Percutan Tech 2005;15:33-5.
12. Chang TS, Ricketts R, Abramowsky CR, Cotter BD, Steelman CK, Husain A, et al. Mesenteric cystic masses: A series of 21 pediatric cases and review of the literature. Fetal Pediatr Pathol 2011;30:40-4.

How to cite this article: Meitei KS, Singh SR, Singh KS. Chylolymphatic cyst of the greater omentum presenting as abdominoscrotal swelling in a child. Indian J Urol 2013;29:260-2.

Source of Support: Nil, Conflict of Interest: None declared.