RARE ETIOLOGY OF ACUTE ABDOMEN: CHYLOUS MESENTERIC CYST

Abdelhalim Mahmoudi*, Khalid Khattala and Youssef Bouabdallah

Department of Pediatric Surgery, CHU Hassan II, Faculty of Medicine and Pharmacy, Sidi Mohamed Ben Abdellah University, Fez, Morocco

DOI: http://dx.doi.org/10.24327/ijrsr.2020.1101.4993

INTRODUCTION

A mesenteric chylous cyst is defined as a cyst in the mesentery of the gastrointestinal tract anywhere from the duodenum to the rectum, which may extend beyond the base of the mesentery into the retroperitoneum. A chylous or lymphatic cyst is a rare sub-classification of mesenteric cysts, specifically of lymphatic origin and usually represents a benign lesion. Chylous Cysts Represent Approximately 7.3% of all abdominal cysts and they were first described by Rokitansky in 1842. These cysts are diagnosed most often during the fifth decade of life and they affect both sexes equally. Mesenteric chylous cysts are very rare conditions in pediatric age. Mesenteric Cysts Usually Reveals Nonspecific Clinical and imaging findings. The treatment of choice is complete surgical removal.

Case Summary

A 4-year-old boy presented to our emergency with diffuse abdominal pain and vomiting 12 hours before admission. His clinical history was clear and he had not noticed the occurrence of the same symptoms before. The clinical examination found a moderate and asymmetrical abdominal distension, a diffuse abdominal tenderness with palpation at the level of the right lower quadrant of a rounded, firm, well limited mass, about 8 cm in diameter and mobile. The X-ray abdomen showed hydroaericlevels (figure 1). Abdominal Ultrasonography Confirmed anechoic lesion, a rounded cystic formation, 8 cm in diameter in the right lower quadrant (Figure 2). In a further investigation with computed tomography (CT), a circumscribed cyst measuring about 8 cm x 7 cm (Figure 3). The cyst was located in the right lower quadrant. Blood tests did not reveal any abnormality. Surgical approach was decided. A cystic lesion size 8 x 7 cm appeared between the layers of small bowel mesentery with a small bowel volvulus around the cyst. (Figure 4). The cystic lesion was excised within healthy borders and sent for further pathologic examination. Pathological examination confirmed a diagnosis of mesenteric chylous Cyst Postoperative course was uneventful. A 12-month follow-up with abdomen ultrasound and 2-year CT imaging showed no signs of recurrence.

*Corresponding author: Abdelhalim Mahmoudi
Department of Pediatric Surgery, CHU Hassan II, Faculty of Medicine and Pharmacy, Sidi Mohamed Ben Abdellah University, Fez, Morocco
DISCUSSION

Mesenteric cysts are identified in one out of 100,000 adult admissions. Based on their contents, they can be divided into serous, chylous hemorrhagic, and chylolymphatic. A chylous mesenteric cyst (CMC) is a rare variant covered by a thin end othelium or me so thelium and filled with chylous fluid. CMCs account for 7.3 to 9.5% of all abdominal cysts.

The most accepted theory for the development of these cysts is benign proliferation of ectopic lymphatics in the mesentery that lack communication with the remainder of lymphatic system. Ileal mesenteric cysts, the most common one, is where as sigmoid colonic cysts is the second most common one. It was first discovered in 1907 by the Italian Anatomist Benevieni who first reported it after autopsy of a 8 years old girl. In 1842, von Rokitansky described a chylous mesenteric cyst. Due to its vague non specific symptoms and signs, it is discovered mainly incidentally during abdominal exploration for any other reason. It is presented mainly with acute abdominal distention and pain with or without palpable masses. The most common mode of acute presentation in children is small bowel obstruction sometimes associated with volvulus and intestinal infarction. In our case the boy presented with small bowel obstruction associated with volvulus.

The preoperative diagnosis may be achieved with the common imaging examinations of the abdomen (ultrasonography, abdominal X-ray, and computed tomography). Ultrasonography usually demonstrates a cystic tumour whose content may form a fluid-fluid level in case of a chylolymphatic cyst. A plain abdominal X-ray may show a gasless, homogenous mass defect displacing the bowel loops around it. In a child with an obstructed intestine, multiple air-fluid levels will be seen on an erect abdominal X-ray. Computed tomography scans show a cystic mass with a thick wall and a fluid content with a low CT number.

Different surgical approaches are used, that is, marsupialization, sclera therapy, drainage, enucleation, percutaneous aspiration, and excision of the cyst with or without resection of the involved gut. But due to high recurrence rates associated with marsupialization and drainage, complete excision of the cyst should be attempted whenever possible.

Histopathological examination of the surgical specimen may reveal unilocular or multilocular cyst, containing a viscous fluid with chylo microns, cholesterol crystals, and triglycerides (chyle), surrounded by a single layer of flattened me so the lialimmuno reactivity cells with cytokeratins and lining a fibrous wall with lymphocytes.

CONCLUSION

Even if it is a rare condition in pediatric population, surgeons must consider the diagnosis of a mesenteric chylous cyst each time they face a cystic abdominal tumor. A total surgical excision seems to be the best therapeutic option in order to minimize the risk of recurrence.

Informed Consent

Written informed consent was obtained from patient who participated in this study.

Conflicts of Interest

The authors do not declare any conflict of interest.

Author Contributions

All the authors participated in the development and implementation of this work. They read and approved the final version of the manuscript.
References


How to cite this article:

******