A giant chylolympathic cyst presenting as intestinal obstruction in a neonate

We are reporting a case of giant chylolympathic cyst of mesentery that presented with obstruction in a neonate. On exploratory laparotomy surgical excision of the cyst along with ileum was carried out. The cyst was diagnosed as chylolympathic cyst on histopathological examination. Due to rarity, we are prompted to report this case.

Key words: Giant chylolympathic cyst, intestinal obstruction, neonate

INTRODUCTION

Mesenteric cysts are infrequently encountered lesions, which have been reported both in children and adults with an incidence of 1 in 35,000 pediatric hospital admissions.[1] A chylolympathic cyst is a rare variant of a mesenteric cyst.[2] The mean age of children affected is 4–5 years. Although mesenteric cysts in general have been reported in the literature fairly frequently, chylolympathic cysts in the pediatric age group are extremely rare in the modern medical literature.[2]

CASE REPORT

A 1-month-old male child delivered by full-term vaginal delivery was brought to casualty of our institute with complaints of abdominal distension, bilious vomiting and inability to pass stool for 4–5 days. There was no history of fever, no history of blood in stools. The general condition of the baby was sick when he was brought to emergency. Baby was dehydrated with sunken eyeballs, fast breathing and a tense and distended abdomen.

All emergency investigations including complete hemogram with absolute platelet count, blood urea and serum electrolytes were done and were within normal limits (Hb - 10 g%, total leucocyte count - 9500, differential leucocyte count neutrophils 78%, lymphocyte 18%, monocyte 2%, eosinophils 2%, platelet count 2.5 lac, shift to left and activated lymphocytes, blood urea 22 mg/dL, blood sugar 140, serum sodium 145, serum potassium 3.5).

The baby was kept NPO, and intravenous fluids were started. Ultrasonography (USG) abdomen was done which showed a large cystic lesion of size 15 cm × 12 cm in abdominal cavity with internal echoes in its lesion with septations but other findings were within normal limits. A plain abdominal radiograph showed a gasless, homogenous mass defect displacing the bowel loops. X-ray abdomen showed 4–5 air fluids levels indicating intestinal obstruction as shown in Figure 1.

The differential diagnosis of duplication cyst, mesenteric cyst, pseudomeconium cyst was made. Computed tomography (CT) scan was done which showed a large cystic lesion of size 15 cm × 12 cm in abdominal cavity with internal echoes in its lesion with septations but other findings were within normal limits. A plain abdominal radiograph showed a gasless, homogenous mass defect displacing the bowel loops. X-ray abdomen showed 4–5 air fluids levels indicating intestinal obstruction as shown in Figure 1.

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The differential diagnosis of duplication cyst, mesenteric cyst, pseudomeconium cyst was made. Computed tomography (CT) scan could not be performed because general condition of the baby was sick. The baby was taken for an exploratory laparotomy after preanesthetic checkup. Intraoperative findings include a large cystic mass of 15 cm × 15 cm size originating from mesentery of ileum and causing ileal compression.

Excision of the cyst and ileal resection was done [Figures 2] and end to end ileo-ileal anastomoses was carried out and sent for histopathological examination. Postoperative period was uneventful. The histopathological report came out to be chylolympathic cyst [Figures 3 and 4].
DISCUSSION

Chylous cysts are rare variants of mesenteric lesions and constitute 7.3–9.5% of all abdominal cysts. There are very few cases of chylolymphatic cysts reported in the literature in neonatal age group, Panjwani et al. found in a 10 days old neonate at jejunal site and Rattan et al. also reported a case series, in our case it was located in ileum.

In most of the cases, the cysts are located in the mesenterium of small intestine, but they can also be found in the descending colon and rectum. As many as 50–60% occur in association with the ileal mesentery.

They may be asymptomatic or may present as abdominal distension, abdominal lump or may present as a case of acute abdomen secondary to a volvulus, intestinal obstruction, hemorrhage, infection, rupture of the cyst. In our case, it presented with ileal obstruction.

Radiological investigations form an integral part of the management of these lesions. A plain abdominal radiograph 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 radiograph; both the findings are evident in roentgenograms in our case. Abdominal USG is currently the imaging procedure of choice a “fluid-fluid level” can be seen on USG due to formation of an upper fluid level by lighter chyle over a lower fluid level of heavier lymph, but in our case internal echoes were seen in the lesion. CT with contrast-enhanced film can show the relationship of the bowel and other vital structures to the lesion. A fat-fluid interface on CT is indicative of a chylous cyst. But in our case CT could not be performed because general condition of the patient was sick. The treatment of choice is complete surgical excision of the cyst. This can be done either by laparotomy or laparoscopy.

The decision regarding the surgical approach depends on the size of the cyst, its location in the abdominal cavity and eventually the level of surgeon’s experience in minimal access surgery. The diagnosis is confirmed on histopathology.
CONCLUSION

Although very rare, chylolymphatic mesenteric cyst should be kept in mind as one of the differential diagnoses of cystic masses of the abdomen. USG and CT suggest the diagnosis, but histopathological examination is required for confirmation. Complete excision of the cyst yields excellent results.

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