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Ileo-cecal Duplication Cyst Masquarading as Intussusception

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Abstract:

Duplication cysts are rare congenital anomaly of gastrointestinal tract. Majority of them present in early infancy, with bleeding or intestinal obstruction. The commonest location of these cysts is ileum. However, ileo-cecal duplications are extremely rare. Presented herein is a case of an infant with acute intestinal obstruction due to ileo-cecal duplication cyst. The clinical and radiological signs were similar to more commonly seen intussusception and diagnosis was established intraoperatively.

Key words: Ileum, Intussusception, Intestinal Obstruction, Cysts, Infant.

Introduction

Enteric duplication cysts are rare congenital anomaly affecting 1 in 4500 births [1]. Majority of affected patients present in first 2 years of life with per rectal bleeding, palpable lump or intestinal obstruction [2]. The commonest location of these cysts is in small bowel but ileo-cecal cysts are exceedingly rare [3]. Clinical and radiological signs may be similar to intussusception. In our case also the diagnosis of ileo-cecal duplication cyst could only be established on exploration.

Case Report

A four months female child was admitted to intensive care unit with history of bilious vomiting, fever and abdominal distension since last 4 days. There was no history of loose motions or bleeding per rectum. Examination of the child revealed tachycardia, moderate dehydration and pallor. Abdomen was distended, but there was no guarding or rigidity. A tender lump was palpable in right iliac fossa. Clinical suspicion of acute intestinal obstruction due to intussusception was made. Haemoglobin was 8.2 gm% and there was hypokalemia. Ultrasound abdomen showed the signs of intussusception, but examination was hampered due to severe gaseous distension. Barium enema reduction was unsuccessful, but it did show a convex filling defect like a claw seen in intussusception. On exploration, there was no intussusception. Instead a large cystic duplication of ileo-cecal region was found, completely obstructing the lumen. Resection of ileocecal region and re anastomosis was done. Postoperative period was uneventful. Histopathology of the cyst was consistent

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with enteric duplication cyst without any aberrant mucosa.

Discussion

Enteric duplication cysts are an uncommon congenital abnormality. Duplications of alimentary tract may be spherical or tubular structures and can occur anywhere from the tongue to the anus [4]. They can occur anywhere along the digestive tract on the mesenteric side. The small intestine is most commonly involved, with the order from most to least common being the ileum, jejunum, and duodenum. Most duplication cysts manifest during the first year of life, although some occasionally manifest in older patients [3]. Children can present with a variety of symptoms including abdominal distension, vomiting, bleeding, a palpable abdominal mass and rarely urinary frequency and hesitancy. Complications include perforation, intussusception, bowel obstruction from adjacent pressure or mass effect, volvulus, and associated malignancy [2]. Duplication cysts can be associated with other congenital abnormalities, such as vertebral or urogenital malformations [5]. However, no other congenital abnormality was present in the case reported herein.

The most common imaging modalities used to image duplication cysts are ultrasonography [USG] and barium studies. CT and Magnetic Resonance Imaging are used less often but can be helpful in difficult cases [6]. On ultrasound, duplication cysts demonstrate an echogenic inner mucosal layer and a hypoechoic outer muscular layer. This appearance is usually not circumferential, as the layers are often non uniform in thickness, but this double-layered wall is often found inover 50% of cases [7] and can confuse the diagnosis with in tussusception. A barium study such as an upper gastrointestinal series with small bowel follow-through or a barium enema examination may demonstrate a sub-mucosal mass with mass effect extending into the lumen of the gastrointestinal tract. The duplication cyst can also sometimes act as the lead point for an intussusception. A partially obstructing duplication cyst may simulate an intussusception on barium enema examination as well [8] as was seen in our case.

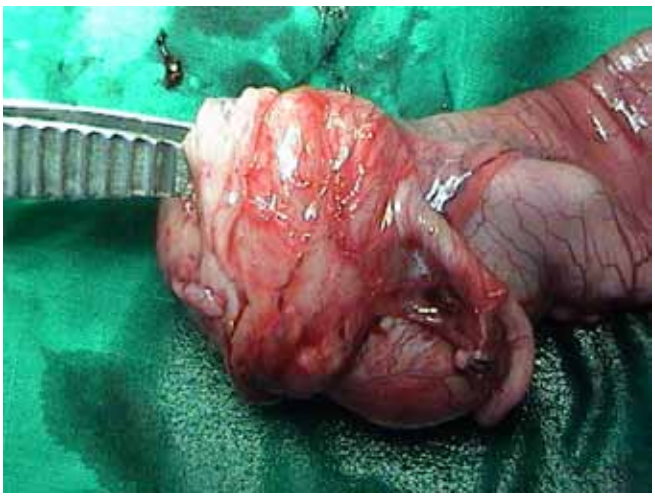

Fig.1: Resected specimen showing the ileo-cecal duplication cyst. Also seen is the appendix.

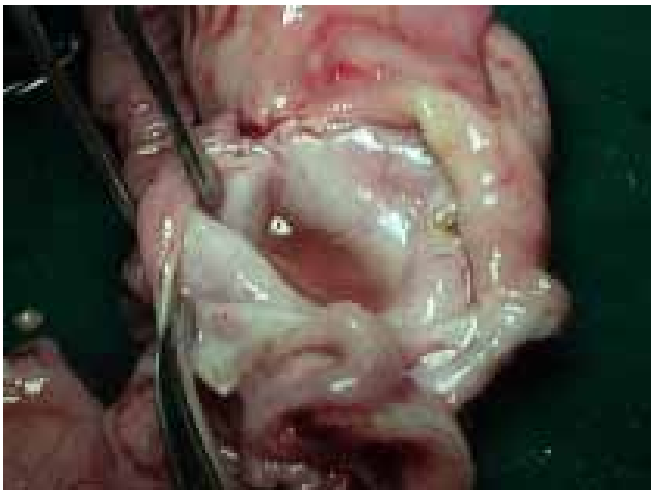

Fig.2: The cyst opened to show the clear fluid and normal looking mucosa

The treatment of choice for enteric duplication cysts is surgical excision [2]. In the case reported herein, the patient had an uneventful course after resection of the duplication cyst.

Conclusion

Ileo-cecal duplication cyst is a rare congenital anomaly. Because of similar presenting symptoms, it may masquerade as more commonly seen problem of intussusception, especially in an infant. Commonly used investigative modalities of ultrasound and barium study may not be able to distinguish between the two.

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