CASE REPORT

Enteric Duplication Cyst of Caecum Presenting with Intestinal Obstruction - A Case Report

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Abstract:

Background: Enteric duplication cyst is a rare congenital anomaly. It can occur anywhere along the alimentary tract from the tongue to the anus, more common in ileum but rare in the caecum. They may be tubular or cystic and most of them are located in the mesentery. *Case History:* A rare case of duplication cyst of the caecum in seven months old female child presenting with bowel obstruction. Ultrasonography revealed intraluminal mass in the caecum involving ileocaecal valve and causing intestinal obstruction.

Key Words: Duplication cyst, Caecum, Intestinal obstruction.

Introduction:

Enteric duplication cyst, an uncommon congenital anomaly, can occur in any portion of the alimentary tract from the mouth to the anus [1, 2]. It may be either cystic or tubular and most often is located on the mesentery of intestine [2]. Majority of them are discovered within the first 2 years of life, occur in the ileum and usually present as an intestinal obstruction [1, 2, and 3]. Cystic duplication of caecum is especially rare with only 19 cases reported so far in English literature [4]. Here we report a case of intestinal obstruction secondary to duplication cyst of the caecum in a seven months female child.

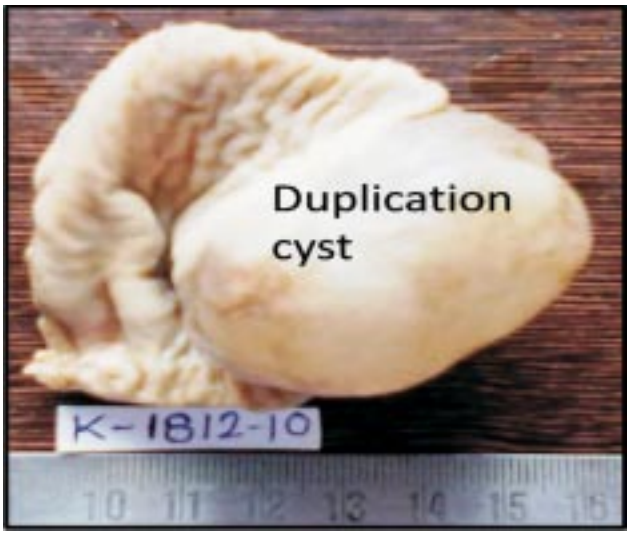
Case Report:

Seven months female child presented with a history of pain in abdomen, vomiting and constipation of 8 days duration. The abdominal pain was colicky in nature and intermittent. There was no history of haematemesis or fever. On examination there was diffuse abdominal distension, it was tender however no abdominal mass was palpable. Blood examination showed neutrophilic leukocytosis and serum electrolytes were within normal limit. Multiple fluid levels were seen on plain x-ray abdomen. Ultrasonography revealed intraluminal mass in the caecum involving ileocaecal valve and causing intestinal obstruction. With the clinical diagnosis of acute intestinal obstruction possibly intussusceptions, the patient was posted for surgery. Intraoperatively a caecal mass was noted, which was obstructing and stretching it. Limited resection with end to side ileoascending colon anastomosis was made. Post operative period was uneventful. Resected tissue was sent for histopathological examination.

Gross: A caecum was received with ileocaecal junction and a part of ascending colon together measuring 6X5X5 cm. The caecum was distended and on cutting an opening showed oval, translucent cyst measuring 5X4X3.5 cm pro-

truding in to the lumen and encroaching on the ileocaecal valve. Luminal surface of the cyst was lined by flattened colonic mucosa with small focal ulcers. Cut section of the cyst oozed out clear serous fluid. The cyst was unilocular with a smooth, shiny grey white inner surface. Rest of the mucosa of the caecum and ascending colon was normal. (Fig. 1 & 2)

Fig . 1 Photography shows an intraluminal cyst in the caecum



Microscopy: Sections from the cyst wall showed the cyst was lined by low columnar to cuboidal atrophic mucosa with mild subepithelial round cell infiltration and a well developed smooth muscle coat. The surface that was towards the lumen of caecum showed thinned out colonic mucosa. (Fig. 3)

Fig. 2 Photograph shows the cut-open cyst having a smooth shiny gray white inner surface.

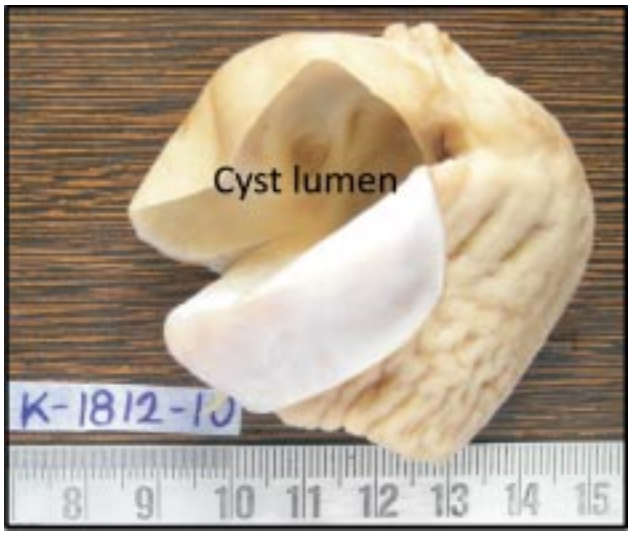
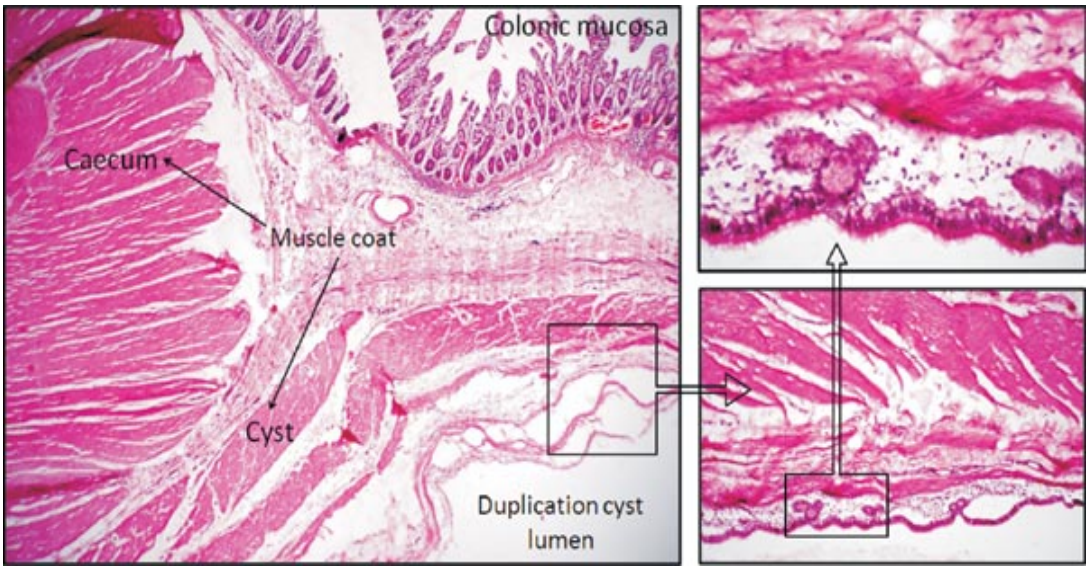


Fig. 3 Microphotograph showing junction of colon & cyst. The cyst has a seperate muscle coat & is lined by thin cuboidal to columnar epithelium.



Discussion:

Enteric duplication cyst, a rare congenital anomaly, can occur in any portion of the alimentary tract from mouth to anus, in infants and children with predominance of males. Fitz first used the term intestinal duplication, later popularized by Ladd in the 1930s and then was classified by Gross in the 1950 [1].

Approximately 80% of intestinal duplications present in the first 2 yrs of life [3]. The most common site is the ileum, followed by esophagus, large bowel, jejunum, stomach and duodenum [5] but they are rare in the caecum [4]. Although several theories have been postulated, the true etiology is not known yet [4].

According to the definition of Ladd and Gross, the cyst must be adherent to some part of the gastrointestinal tract, contain smooth muscle in the wall and have an internal lining of alimentary epithelium [6]. They are named according to the location [1] and are generally cystic or tubular masses [4]. In 10-15% cases the cysts are multiple [3].

Symptoms vary according to the size, morphology and location of the cysts. Although many cysts are diagnosed incidentally, common symptoms include abdominal pain, distension, vomiting, constipation, gastrointestinal bleeding or intestinal obstruction [3]. They may be associated with spinal and genitourinary anomalies [3]. Ultrasonography, plain radiographs, gastrointestinal contrast studies, C.T. & MRI have been useful for correct preoperative diagnosis. Segmental resection is the treatment of choice [3].

Here we present a case of intestinal obstruction secondary to duplication cyst in caecum and was diagnosed postoperatively.

Conclusion:

Duplication cysts of intestine presents with varied abdominal signs & symptoms and should be included in the differential diagnosis for pediatric surgical abdominal emergencies. Resection is the treatment of choice with good outcome.

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