



## ILEAL DUPLICATION CYST: THE RARE LEAD POINT IN INTUSSUSCEPTION

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**ABSTRACT** Gastrointestinal duplication cysts are rare congenital anomalies which typically present as a case of acute abdomen in childhood. These are most commonly located in the ileum. Duplication cysts in the small bowel can present with a non-specific clinical manifestation such as abdominal pain, intestinal obstruction, vomiting and per-rectal bleeding. Herein we report one such case of a 6-month-old child presenting with massive bleeding per-rectum, the underlying cause of which remained elusive till laparotomy was performed.

### KEYWORDS :

#### INTRODUCTION:

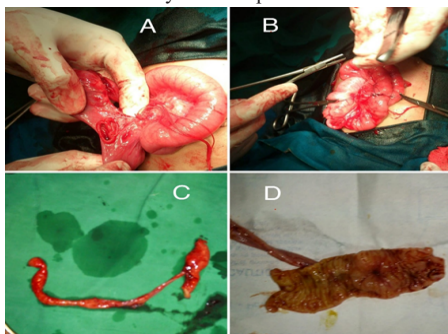
Duplication of gastrointestinal tract are rare congenital anomalies which are often found early in life (majority cases diagnosed under the age of 2 years, and rarely in adults).<sup>1</sup> These may be located in any part of the gastrointestinal system from mouth to the anus. However, they are most frequently seen in terminal ileum, ileocaecal region and the oesophagus.<sup>2</sup> Duplication cysts may be cystic (80%) or tubular (20%).<sup>3</sup> They may be present within the gastrointestinal tract or extrinsic to it.<sup>4</sup> Most of these cysts found in the small intestine are located at the mesenteric border of the ileum.

Symptoms include intra-abdominal mass, abdominal pain, rectal bleeding and intestinal obstruction, making preoperative diagnosis difficult.<sup>5</sup> Radiological imaging may not be enough to establish definitive diagnosis.

We present a case of a 6-month-old who presented as a case of rectal bleeding under evaluation.

#### CASE REPORT:

A 6-month old female presented to the emergency department as a case of rectal bleeding since 10 days, abdominal distension with increased irritability since 2 days. No history of fever and vomiting. Routine investigations were performed. USG of abdomen and pelvis showed findings suggestive of ileocolic intussusception. Hydrostatic pressure was attempted, after which the child passed large quantity of air and stools. Abdominal distension reduced and the child became less irritable. The child remained asymptomatic for the next 2 days, following which it presented with similar complaints. CT scan of the abdomen and pelvis showed ileocolic intussusception with possible ileal duplication cyst. Exploratory laparotomy was performed which showed intussusception 6" from ileocaecal junction. Ileal duplication cyst was seen 10" from IC junction. Meckel's diverticulum was absent. Ileal resection was done 0.5" proximal and distal to the duplication cyst, up to the blind loop. Resection with end-to-end ileal anastomosis was done. Histopathology examination showed duplication cyst with ileal mucosa and without any heterotrophic tissue.



**Figure 1:**

- A] Double lumen of ileal duplication cyst.
- B] Ileal resection and anastomosis.
- C] Resected Ileal segment including blind loop.
- D] Specimen of ileal duplication cyst.

#### DISCUSSION:

Duplication cysts are infrequent congenital malfunctions. It usually affect males and has an incidence of about 1 per 10000 live births.<sup>7</sup> Amongst the theories suggested for etiology for duplication cysts are persistence of foetal bowel diverticula, defective recanalization of the solid gut, partial twinning and split notochord theory.<sup>8</sup>

As the symptoms include abdominal pain, vomiting, constipation and rectal bleeding, they can easily be misdiagnosed as appendicitis, Crohn's disease and Meckel's diverticulum.

Duplication cysts must be differentiated from Meckel's diverticulum, which is a true diverticulum derived from remnant omphalomesenteric duct during development of terminal ileum, while a duplication cyst can occur anywhere in the alimentary tract. Also, while ileal duplication cysts appear on the mesenteric aspect, Meckel's diverticulum is seen on antimesenteric aspect. On detection of a duplication cyst, resection and anastomosis of adjacent normal intestine is necessary, as common bowel wall and blood supply is shared.<sup>9</sup>

Surgical intervention is a must when duplication cysts are owing to potential complications including bowel perforation, bleeding, obstruction and malignant changes.

Notably, nearly 23% of intestinal duplication cysts in adults were affected by ileal cancer.<sup>10</sup>

#### CONCLUSION:

While Meckel's diverticulum, lipoma, mucosal polyp and lymphoma are frequently encountered as lead points in intussusception, duplication cysts of alimentary tract remain rare. Symptomatic complicated duplication cysts require urgent surgical intervention. Uncomplicated duplication cysts must also be definitely excised due to their potential for malignant transformation.

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