

Post-operative intussusception: a rare phenomenon

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Introduction

Non bilious vomiting is a common encounter in children with a recent history of surgery. An intestinal pathology of surgical origin is often not considered as a possible aetiology. Progressively worsening vomiting despite being non-bilious warrants further investigations as exemplified by the following case scenario.

Case report

A 2½ year old boy with developmental delay and failure to thrive underwent laparotomy and corrective Ladd's procedure for malrotation of midgut following guidance from an upper gastrointestinal contrast study. After establishing oral feeding, he went home but got readmitted 6 days after laparotomy with progressively worsening non-bilious vomiting. Passage of a nasogastric tube revealed a bilious aspirate suggestive of intestinal obstruction.

An upper gastrointestinal contrast study identified complete obstruction at the ileo-caecal junction which was quite different to the findings of the pre-operative contrast study.

The ultrasound scan of abdomen confirmed an ileo-colic intussusception (Figure 1).

Laparotomy for reduction of intussusception was performed (Figure 2).

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Figure 1: Ultrasound scan of abdomen showing target (doughnut) sign of intussusception (shown by arrow)



Figure 2: Appearance of intussuscepted intestine at laparotomy (shown between arrows)

Discussion

Post operative intussusception (POI) is a rare encounter in children and only 127 case reports have been published worldwide¹. The majority (51.2%) seems to occur following gastrointestinal surgery¹. One study identified POI as being relatively common after corrective surgery for malrotation of midgut compared to surgery for other intestinal pathologies². There are no Sri Lankan publications on POI in children. In children with no previous surgical interventions, hypertrophic Peyer's patches acting as a lead point are a recognizable aetiological factor to cause intussusception³. The aetiology of POI however, remains unclear. Clinical features of POI include child presenting within 7 days after surgery (in around 75% instances), with excessive non-bilious or bilious vomiting¹. Other features like

abdominal distension and lack of stool may be associated. A typical feature of intussusception with no previous surgical history is episodes of spasmodic abdominal pain. Vomiting is common but is rarely bile stained in the first few hours. Overt rectal bleeding is not consistent³.

Intussusception is diagnosed by the typical appearance of 'target' or 'doughnut' sign in the transverse images of an abdominal ultrasound scan^{3,4}. Intestinal obstruction resulting from post-operative fibrous bands is common but takes a longer time to develop. The typical clinical feature is bilious vomiting. Abdominal distension and absolute constipation are frequently associated features⁵. The management of a stable child with uncomplicated post-operative adhesive intestinal obstruction is initially conservative expecting a spontaneous resolution. In contrast, POI requires rapid intervention (image guided or open surgical reduction) to prevent intestinal ischaemia that leads to perforation.

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