EDITORIAL

An Unusual Presentation of Jejunal Stenosis: A Case Report

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Abstract:

Late presentation of jejunal atresia or stenosis is very rare. All patients present within the 1st to 5th day of life. They present with symptoms and signs of intestinal obstruction. Bilious vomiting is one of the most important and diagnostic feature. Other symptoms and signs of intestinal obstruction are very rare. In patients with duodenal stenosis the presentation is usually late and their main presenting symptom is failure to thrive with or without symptoms of intestinal obstruction.

Here we present a thirty one month female who was seen with symptoms and signs of chronic intestinal obstruction. Her main symptoms were bilious vomiting, abdominal distension and constipation. The condition started since birth. Pregnancy was uneventful and she was an outcome of spontaneous vaginal delivery with birth weight of 3kg.

Introduction:

Jejunal stenosis is characterized by localized narrowing of jejunum without disruption of continuity or defect in the mesentry. At the stenotic site there is a short narrow segment with a minute lumen, the resultant intestinal obstruction is incomplete an accunt for 5% of jejunal obstruction (1). On the other hand intestinal atresia accounts for about one third of all cases of neonatal intestinal obstruction. The survival rate has improved to 90% in most of the series with operative mortality less than 1% (2).An increased mortality is observed in multiple atresias (75%), apple peal atresia (71%), atresia associated with meconium peritonitis (50%) and with gastrochisis (60%) (1). Refinement in neonatal intensive care, neonatal anesthesia, surgical technique and use of TPN(total parenteral nutrition) lead to significant improvement in survival.

In contrast with duodenal atresia, jejunal atresia is not frequently associated with other ultra short bowel syndrome (less than 40 cm intestinal length) requiring long term TPN which could be complicated by liver disease; is a major cause of morbidity and mortality in these patients. Bowel stenosis can occur in any part of gastroinestinal tract, children with jejunal stenosis can present with bilious vomiting, abdominal distention and delayed passage of meconium.

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History of poly hydroamnios is uncommon and 30% have unconjugated hyperbilirubinaemia.

Case Report:

A thirty one month old girl from Elmanagel presented to the emergency department with bilious vomiting, abdominal pain & constipation. The pregnancy was unremarkable; she was born at term with a birth weight of 3 kg. At the age of 6 weeks vomiting was frequent, average in amount, some time bilious, so parents sought medical advice and the child was admitted several times at Elmanagel Hospital. She was breast fed about ten times per day. Supplementary feeds were started at the age of 6 months, observing that solid is vomited and the mother kept her child in semisolid & liquid diet in the form of porridge, cooked vegetable and yogurt five times per day. Her developmental history was normal and her family history was unremarkable.

On examination, her temperature was 37 Cº, heart rate 100 beat/minute, respiration 40 breaths/ min and blood pressure 90/60 mmHg. Her weight was 10 kg, mid-arm circumference was 12 cm. Her abdomen was massively distended with grossly visible peristalsis but soft, no masses & bowel sounds were normal.

Initial laboratory data showed: sodium level of 140 mmol/L, serum potassium 4.1 mmol/L, haemoglobin 9.7 gm/dl and urine general was normal. Abdominal X-ray showed evidence of high small bowel obstruction.

The child was then diagnosed as a case of partial intestinal obstruction and a plan for laparotomy was made.

The patient underwent laparotomy through right upper transverse muscle cutting incision. Grossly dilated proximal jejunum was found with collapsed distal small bowel. Resection and tapering jejunoplasty with end to end anastomosis was made. Inspection of the resected segment revealed a pin hole opening between the dilated and collapsed segment (figure 1). Patient was transfused with blood. Postoperative period was uneventful. The patient stayed for two weeks and discharged in a good condition. After six month the girl was healthy looking and gaining weight.

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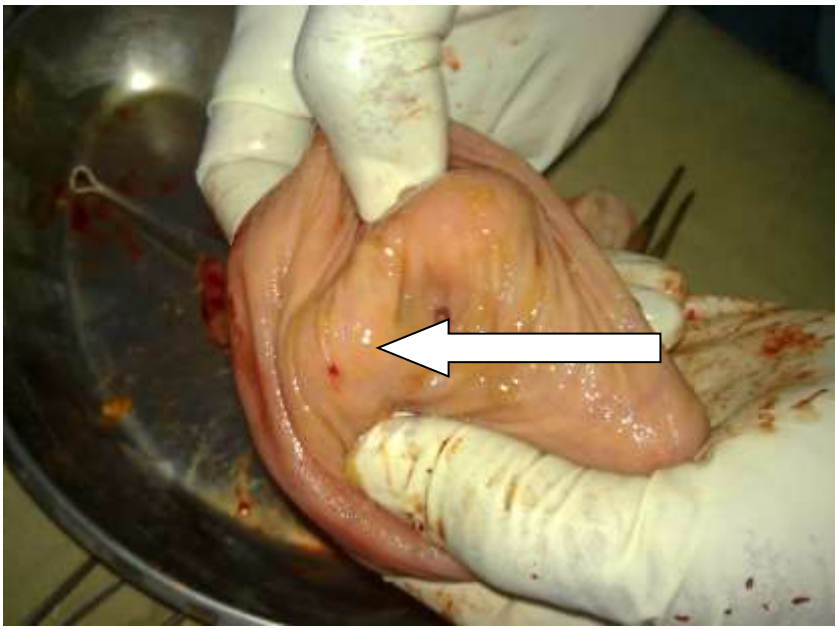

Figure 1: Resected specimen at laparotomy showing the thick-walled dilated upper jejunem and the pin-hole orifice at the site of stenosis.

Discussion:

Jejunal atresia or stenosis results from mesenteric vascular accidents occurring sometimes after the second trimester. It has been suggested that, if a vascular accident affects the superior mesenteric artery immediately distal to its origin,the consequences could be an apple peal jejuna atresia [3]. Intestinal atresia or stenosis is well recognized cause of neonatal intestinal obstruction. Vascular accidents thought to be a majority of these lesions [4]. Familial cases of type lllB atresia thought to result from a deviation from normal embryonic pathology. [5]

Prognosis of intestinal atresia or stenosis has improved significantly in the last few years with better understanding of the parenteral nutritional support [8]. Preservation of intestinal length and bowel lengthening procedures improved management of associated anomalies, and availability of small bowel transplantation has enhanced the physician armamentarium in managing these conditions. Prognosis depends on many factors [8]. In the overall, patients with jejunal atresia have much better prognosis than those with ileal atresia. The greater adaptability and increased surface area for absorption of the ileum is thought to improve the outcome in patients with jejuna atresia or stenosis. [2, 6, 7]

The most common cause of death in infants with jejuna atresia or jejunal stenosis is infection related to pneumonia, peritonitis and sepsis. The most significant post operative complications are functional intestinal obstruction and anastomotic leak.Other factors contributing to morbidity and mortality are associated anomalies, prematurity, short bowel and postoperative obstruction due to adhesions or volvulous.

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Intestinal stenosis can occur in any part of gastrointestinal tract and the anatomical location of the obstruction determines the clinical presentation. Most children with jejunal stenosis present with bilious emesis which is intermittent (once or twice in 7-10 days), with or without hypoporoteinemia [(9)]. Bilious vomiting in children should consider secondary to bowel obstruction until proven otherwise.

Our patient survived this period because of the liquid &semisolid diet realized by her mother. Late presentation of high jejunal stenosis is quite rare, because of unawareness of types of significant vomiting, children usually presented late like our patient. To our knowledge this one of the few cases attaining this age reported in the literature.

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