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Case Report Open Access

Colonic Atresia: A Case Report

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Abstract

Atresia of the colon is among the rare types of all gastrointestinal atresias. Transverse colon is the rarest site of all the colonic atresias. We report a case of a 3 day old female baby who presented with the features of distal intestinal obstruction. At laparotomy type III atresia of the middle part of transverse colon, with proximal dilatation of caecum and ascending colon and distal part of transverse colon, descending colon and sigmoid colon being microcolon is noticed. Newborn underwent exploration primary ileostomy and distal mucus stoma of transverse colon was done.

Keywords: Colonic atresia; Ileostomy; Abdominal distension

Introduction

Atresia of the colon is an uncommon entity distinct from congenital pouch colon, which is a more frequent occurrence in India and Asia, and is associated with anorectal malformations. Reported incidence of colonic atresia is 1 in 20,000 live births [1,2]. Although the underlying cause of colonic atresia may be vascular insufficiency, the association with Hirschsprung's disease [3,4], in particular, and the gross discrepancy between the proximal and distal bowel diameters is in the way of management in contrast to management strategies described for small bowel atresias.

Case Report

A 3 day old term Female baby was born through normal delivery, to an otherwise healthy primigravida, at a peripheral hospital. No prenatal problem was detected on routine antenatal visits. The baby did not pass meconium till 3rd day when she developed marked abdominal distension along with other features of intestinal obstruction. At the time of admission to our hospital newborn had distension, mild dehydration. There was no other apparent associated anomaly. Rectal stimulation was inconclusive. Plain X-ray of the abdomen in erect posture showed multiple air fluid levels suggestive of distal small bowel obstruction. A diagnosis of distal large bowel atresia was made. Baby was optimized by fluid and electrolytes replacement. Parenteral antibiotics along with vitamin K were administered.

Laparotomy was performed, on exploration there was Type III atresia (A 'V' shaped defect in mesentery with proximal and distal blind ends) of transverse colon with proximal gross dilation of caecum, ascending colon and distal part of ileum (Figure 1). A NG tube was introduced through the distal microcolon and wash given, fluid flown out of anus suggesting distal patency (Figure 2). In view of size disparity proximal ileostomy and distal mucus stoma of the transverse colon was made. Newborn recovered well and started on oral feeds on 3rd postoperative day. Ileostomy stoma functions well, and healthy. Newborn is planned for definitive procedure of ileocolic anastomosis during later date.

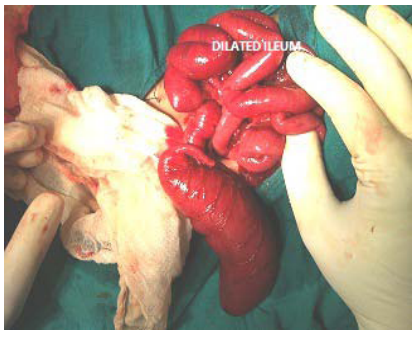

Figure 1: Distal part of transverse colon, descending colon and sigmoid colon was microcolon.

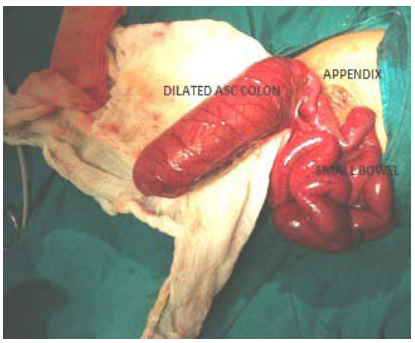

Figure 2: The proximal dilated caecum, ascending colon resected.

Discussion

Colonic atresia accounts for 1.8-15% of intestinal atresias [5]. Ascending colon is the rarest site of colonic atresia. Due to its rarity it is usually not thought of in the differential diagnosis of neonatal intestinal obstruction. Delayed recognition of symptoms increases the risk of complications like perforation and sepsis [6,7]. Etiology of this anomaly is still debated. Commonly accepted theory is that of in-utero vascular accidents in the early gestation. Colonic volvulus, intussusception, incarceration and strangulation of internal hernias in-utero, are also the probable etiological factors [8]. Failure of recanalization after the solid cord stage as in duodenal atresia is also considered to be the cause of colonic atresia. Due to the rarity of the disease available literature is scanty. Associated anomalies like abdominal wall defects

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(gastroschisis), musculoskeletal disorders, and small gut atresia, ocular and facial anomalies are common.

Uncomplicated right colonic atresia can be treated with primary anastomosis with little morbidity whereas staged reconstruction with proximal diversion is advised in sigmoid and left colonic atresia, transverse colon to avoid the complications of anastomosis [7,9]. Preservation of ileocecal valve is desired for future growth of the child. Due to hugely dilated caecum and the enormous disparity between the caecum and atretic transverse colon in the reported case primary anastomosis was deferred hence ileostomy seems appropriate. However the operative strategy depends on the clinical state of the patient and the safety of the procedure should always be a priority [10]. In the case presented staged procedure was adopted and it resulted in early recovery and discharge of the patient. Stoma care is an issue in these cases especially with ileostomy where effluent is more fluid in nature. To address this issue an early reversal was planned in our patient.

Conclusion

Colonic atresia is rare entity has better prognosis when intervened earlier, can be managed with primary ileostomy and planned ileocolic anastomosis at later date.

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