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Original Research Paper

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COLONIC ATRESIA WITH ANORECTAL MALFORMATION — A RARE CASE REPORT WITH REVIEW OF LITERATURE

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ABSTRACT Colonic atresia is a rare form of intestinal atresia accounts for around 1 per 20000 live births. [1] It may present as isolated lesion or it may be associated with other congenital anomalies like hirschsprung's disease, imperforate anus, exomphalos, multiple atresia or colonic duplication. This is quite difficult to make diagnosis when colonic atresia is associated with other congenital anomalies. We are presenting a case of imperforate anus operated outside came to us for definitive repair. The distal atretic segment was about five cm from prolapsed part.

KEYWORDS : Colonic atresia, Imperforate anus, Prolapsed colonic loop

Case Report-

Five year old boy presented with imperforate anus and had transverse colostomy done on day two of his life. The distal colonic loop was prolapsed. He had no previous operative notes. On examination the developmental milestone of child was normal. There was absent anal opening with normal looking scrotum and external genitalia. Distal loop of transverse colostomy was prolapsed without any visible lumen. Routine blood test was done and was within normal limits. Abdominal sonography showed no renal deformity. Distal cologram was not possible because of prolapsed distal loop. We were not able to assess distal end of rectum due to lack of distal cologram. So abdominal pull through surgery was planned. Left sided lower abdominal hockey stick incision was taken. The distal colon was communicated with bladder neck. Rectum was disconnected and was pulled to perineum to form neoanus. . Anaplasty was done. Whole procedure was uneventful and patient was discharged. Then after three month child was taken for colostomy closure. Contrast enema was done. It showed narrowed colon and contrast was reached up to transverse colon but not came out of loop. We missed the diagnosis as dye stopped at atretic colonic segment that was close to prolapsed loop.[figure 2&3] After mobilization of colostomy we found atretic segment distal to prolapsed loop. It was of around 4 cm in length and mesentery was intact so it was type 2 atresia.[figure 1]. As there was big discrepancy of lumen between proximal and distal segment so colostomy closure was postponed. Atretic segment was excised. Both lumens brought as stoma.[figure 4]

DISCUSSION–

Colonic atresia is a rare cause of intestinal atresia. Colonic atresia was first described by Binninger in 1673.[2] The incidence varies from 1 in 1500 to 1 in 40000 live births. [3] and approximately 1.5% to 15% of all intestinal atresia .[4]. There is no gender predilection of colonic atresia. Colonic atresia may present as isolated anomaly or it may be associated with other anomalies like Anorectal malformation, abdominal wall defect (gastroschisis, omphalocele, bladder and cloacal extrophy) [5] , cardiac anomalies [6], musculoskeletal defect [7] etc. Colonic atresia is associated with proximal small intestinal atresia in 15 to 20% of cases. Hirschsprung's disease is present in at least 2% of colonic atresia. The etiology of colonic atresia is not clear. But most accepted theory is uterovascular insufficiency after organogenesis. The classification of colonic atresia is similar to small intestinal atresia. The classification was given by Bland-Sutton and Louw [8]. Type 1 lesions are intraluminal obstruction due to web, type 2 lesions are blind proximal and distal segments connected by a fibrous cord. Type 3 lesions are completely separated segment of intestine with mesenteric defect. Type 3 is the most common lesion of colonic atresia. In isolated colonic atresia newborn presents with fail to pass meconium and abdominal distension after 24 to 48 hrs. x-ray abdomen erect posture should be done in neonates suspected of intestinal obstruction . It shows multiple gas fluid level. Contrast enema radiography with isotonic contrast is the gold standard for diagnosis of colonic atresia. Distal micro colon is characteristic of complete obstruction. But in our case baby had absent anal opening with colonic atresia. As there was no operative notes of first surgery and distal part of stoma was prolapsed so the diagnosis of colonic atresia was missed. The surgical management of colonic atresia is either primary anastomosis or proximal colostomy and secondary closure. But as colonic atresia is associated with hirschsprung's disease it must be rule out before colostomy closure or primary anastomosis.

CONCLUSION-

Colonic atresia is rare cause of intestinal obstruction in newborn. It may presents as isolated lesion or may be associated with imperforate anus, hirschsprung's disease or abdominal wall defect. Whole colon must be inspected before performing colostomy in case of high Anorectal malformation.

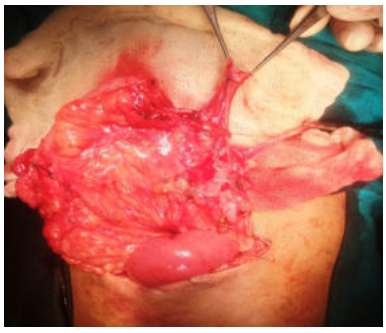

Figure-1 -- Atretic segment

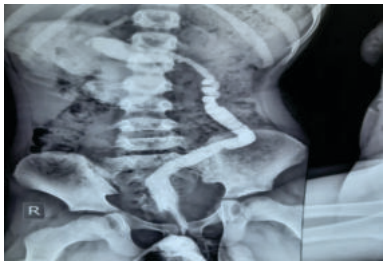

Figure 2—Contrast Enema [AP View]

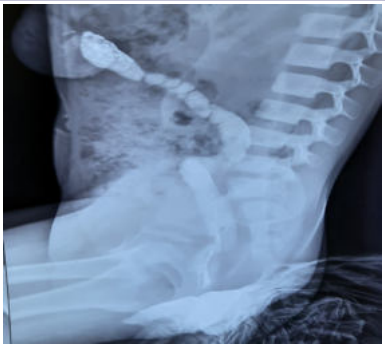

Figure 3—Contrast Enema [Lateral View]

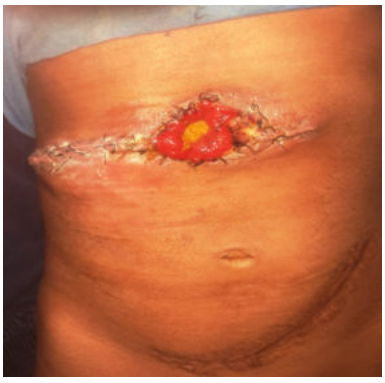

Figure 4—**C**olostomy

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