ILEAL ATRESIA WITH INTESTINAL DUPLICATION

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Ileal atresia and intestinal duplications are uncommon malformations. A combination of the two in one patient is rare. A case of a neonate with intestinal obstruction who was discovered to have both these anomalies on exploratory laparotomy, is presented.

Case Report:

A 14-day-old full-term male neonate weighing 2.4 kg presented with vomiting, constipation and abdominal distension since birth. The baby had gross fluid and electrolyte imbalance which was corrected on admission. A plain X-ray of abdomen revealed multiple distended loops with gas fluid levels. Exploratory laparotomy was performed after 24 h and type IIIa mid ileal atresia was found with dilatation of the proximal loop. About 15 cm proximal to the involved site an enterogenous duplication cyst was present (Fig.). It was 3×2.5 cm in size with common musculature and blood vessels. Bishop-Koop(1) anastomosis was performed after resection of the grossly dilated proximal segment including the duplication cyst. A transanastomotic

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Fig. Excised proximal dilated segment showing proximal end A, distal end B and enterogenous cyst C.
silastic tube was passed through the exteriorized distal loop into the proximal segment for about 10 cm. This was used to decompress the proximal segment for about 10 cm. This was used to decompress the proximal segment and was removed on the fourth day. Post-operative recovery was uneventful. The enterotomy opening was closed after 3 months.

Discussion

Duplication of bowel occurs infrequently and is usually an isolated finding(2). Out of 38 cases of gastrointestinal duplication in one series, only one was found to have associated atresia(3). A deLorimier et al.(4) have described 613 cases of jejunoileal atresia over a decade, of which 49% were ileal. Malrotation and meconium ileus were the commonest associated abnormalities. Only 7 cases of jejunoileal atresia with duplication were found in this series. In another series of 127 cases of jejunoileal atresia, no patient had associated duplication(5). A recent series of 45 infants with small bowel atresia showed an association of enterogenous cyst in 2 cases only(6). The finding of both ileal atresia and duplication in a patient is thus rare. In our experience 77 cases of intestinal atresia over the past 10 years, this is the first case with an associated intestinal duplication.

The etiology of jejunoileal duplication is probably multifactorial with implication of persistence of transitory intestinal diverticula, median septum formation, errors of recanalization of epithelial plugs and traction by the neural tube(7). Interruption in vascular supply is an important cause of intestinal atresia (5). Duplication cysts are known to give rise to intestinal volvulus in children and it is possible that such an event may take place in intrauterine life. This could lead to bowel ischemia and atresia.

This patient presented for treatment late (this is common in India). Preoperative diagnosis of these patients is difficult with the proximal dilated loop obscuring the presence of a duplication cyst.

The authors have been using Bishop-Koop operation with trans-anastomotic decompression of the proximal segment for many years and have found significantly reduced incidence of anastomotic leakage and stenosis.

REFERENCES