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ENTEROPLASTY BY ANTIMESENTERIC SEROMUSCULAR STRIPPING AND MUCOSAL INVERSION FOR DILATED PROXIMAL JEJUNAL ATRESIA: AN EFFECTIVE TECHNIQUE FOR EARLY ESTABLISHMENT OF ENTERAL FEEDING

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Aim: Jejunal atresia is frequently associated with significant dilatation, leading to anastomotic calibre discrepancy, and abnormal motility that delays feeding. We present our approach to address this problem, and its outcomes.

Methods: Forty neonates presented with jejunal atresia (types I, II & IIIa), from 2012 to 2015. Cases with multiple atresia, apple-peel variant, meconium ileus were excluded. For babies with very proximal atresia and significant dilatation (diameter > 5 cm) extending back to the duodenum, we excised only the distal tip of the dilated bowel and stripped a tringle of seromuscular layer up to the DJ flexure and completed a hand-sewn inversion of mucosa along the antimesenteric border, without duodenal derotation, followed by a single-layer end-to-oblique anastomosis (group A). Babies with a more distal atresia (> 10 cm from DJ flexure) and/or no significant dilatation received a standard excision of a short proximal segment and a single-layer end-to-oblique anastomosis (group B).

Results: Thirteen cases had seromuscular stripping and mucosal inversion (group A). Twenty-seven cases fell in the comparison arm, group B. There was no significant difference in birth weight between both groups (p=0.797), group A was 3.08±0.28 Kg, and group B was 3.04±0.52 Kg. Gestation age of all cases in both groups was above 36 weeks. Mean residual small bowel length was comparable, 145 cm for group A, and 150 cm for group B (p=0.041). Mean operative time was 90 minutes for group A, and 60 minutes for group B (p=0.065). Duration until 150 ml/kg/day of enteral feeds became tolerated, and parenteral nutrition was weaned, was shorter in group A (12±2 days), compared to group B (15±4 days), p=0.032.

Conclusion: Enteroplasty by seromuscular stripping and mucosal inversion leads to early establishment of feeds in dilated proximal jejunal atresia.