

Inclusion Criteria:

- Any patient with suspected or confirmed Jejunal or Ileal Atresia

[Surgery for Intestinal Atresia - Children's Hospital of Orange County \(choc.org\)](#)

Clinical Evaluation:

- Obtain surgical consult
- May be diagnosed in the prenatal period; h/o polyhydramnios, dilated or echogenic bowel on ultrasound.
- Abdominal distention, bilious or persistent emesis.
- Other differential diagnoses include malrotation, volvulus, meconium plug syndrome, and meconium ileus with cystic fibrosis (Grade B)
- Imaging:
 - KUB: distended bowel loops and absence of rectal gas (after 12-24 hours); multiple dilated bowel loops (Grade A)
 - Upper GI to rule out malrotation/volvulus; small bowel follow-through/contrast enema to evaluate (Grade A) microcolon

Preoperative:

- PICC placement for TPN
- NPO and Milk Oral Pharyngeal (MOP)
- Salem sump (SS) to low intermittent wall suction (LIS) for gastric decompression (Grade B)
- Preoperative antibiotics: Cefoxitin x24 hours (Grade D)
- Postoperative pain medications using pain guideline 2
- Consent for blood transfusion

Intraoperative:

- Level of obstruction identified; primary anastomosis versus creation of ileostomy pending operative findings
- Document area of atresia, area/length of resected intestine, and presence/absence of ileo-cecal valve
- Common to have dilated proximal bowel

Postoperative:

- NPO; continue TPN/SMOFlipid® and MOP *(ERAS)
- Pain medications using surgical pain guideline 2 *(ERAS)
- SS to LIS
 - SS/ostomy output >10 ml/kg/shift, consider ½ NS replacement IVF (replace 1 mL/mL output over 4 hrs)
 - SS to gravity → consider when gastric output < 20-30 ml/kg/d and non-bilious/clearing
 - SS removal → consider with tolerance (no emesis) of SS to gravity *(ERAS)
- If ostomy created, assess stoma for tissue perfusion, evidence of prolapse or retraction, and stool output; consult Skin Wound Ostomy Team (SWOT)

Postoperative Complications:

- Risk of short bowel syndrome (SBS) and/or intestinal failure if large segment of intestine is resected and/or there is significant intestinal dysmotility related to substantial dilation proximal to level of atresia
 - At risk for malabsorption, dumping, electrolyte abnormalities, bacterial overgrowth, and growth failure
 - At risk for intestinal failure associated liver disease (IFALD) and central line-associated blood infection

Postoperative Feeding:

- Surgical team clearance and return of bowel function (stool/ostomy output and tolerance of SS removal)
- Use human milk (maternal/parent's or pasteurized donor), PO vs gavage per CGA/respiratory status
 - Surgical Feeding Guideline 1: Consider for preterm infants (< 34^{0/7} weeks GA and/or < 2 kg) or infants with significant dysmotility or bowel resection *(ERAS)
 - Surgical Feeding Guideline 2: Consider for infants > 34^{6/7} weeks GA and uncomplicated postoperative course
 - Infants with SBS/IF: smaller volume feeds and slower/more cautious advancement may be indicated

Discharge teaching:

Pediatric surgery follow-up appointment in 2-3 weeks

Appendix

Classification of jejunoileal atresia

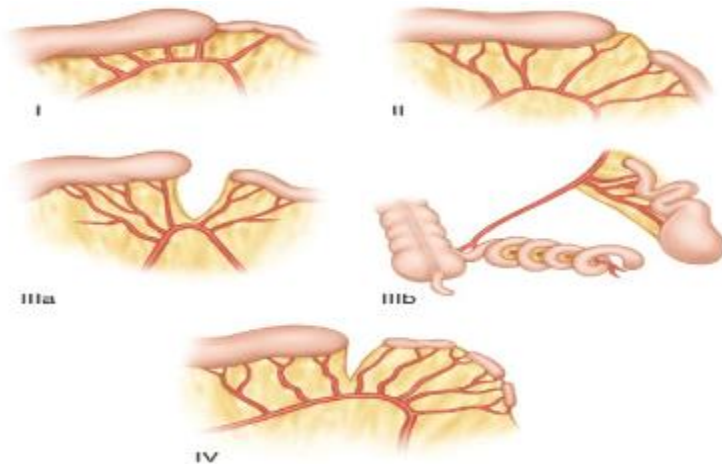
Type I: Lumen obstructed by web.

Type II: Gap in bowel continuity, proximal and distal segments connected by fibrous cord.

Type IIIa: Gap in bowel continuity but no connection between the two ends and V-shaped gap in mesentery.

Type IIIb: Apple peel. Large gap in mesentery. Foreshortened small bowel distal to atresia and coiled like apple peel.

Type IV: Multiple atresia, like sausage on string.



KUB showing obstructive pattern consistent with intestinal atresia.

References

1. Garg,V.,Puri,A.,Sakhuja, P. (2020). Novel Insights into the histology of jejunoileal atresia and its therapeutic implications. Journal of pediatric surgery. 2020 55 pp. 2630-2634 **(Level II)**
2. King, A. Intestinal atresia Accessed Jan 2023 Uptodate **(Level VI)**
3. Ogle, S., Nichol,P., Ostile,D. (2020). Duodenal and Intestinal Atresia and Stenosis in Holcomb and ashcraft's Pediatric Surgery 30 pp.489-506 **(Level II)**
4. Prachuapthunyachart,S.,Merani,S.,Cloonan,.M., etal (2021). Immune function and infections in children with jejunoileal atresia. Journal of Pediatric Surgery 56 (2021) pp 454-458 **(Level III)**
5. [Reid JR. Practical imaging approach to bowel obstruction in neonates: a review and update. Semin Roentgenol 2012; 47:21.\(Level 1\)](#)
6. [Rich, B, Bornstein,E.,Dolgin,S. Intestinal Atresias. Pediatrics in Review Vol 43\(5\) May 2022 pp 255-274 \(Level III\)](#)