STOMAS IN CHILDREN

INDICATIONS, PROBLEMS, MANAGEMENT

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STOMAS IN CHILDREN

Congenital Pathology

- Hirschsprung disease
- *Intestinal failure*

Acquired pathology

Trauma

IBD

Neutropenic sepsis

STOMAS IN BABIES

Congenital Pathology

- Anorectal malformations
- Intestinal atresias
- Gastroschisis
- Hirschsprung disease

Acquired pathology

Necrotising enterocolitis (NEC)

Midgut malrotation and volvulus

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HIRSCHSPRUNG DISEASE

1:5000 LIVE BIRTHS

M:F 4:1

ABSENCE OF GANGLION CELLS IN MYENTERIC AND SUBMUCOUS PLEXUSES

CHOLINERGIC INFLOW RESULTS IN INCREASED TONE IN AFFECTED BOWEL

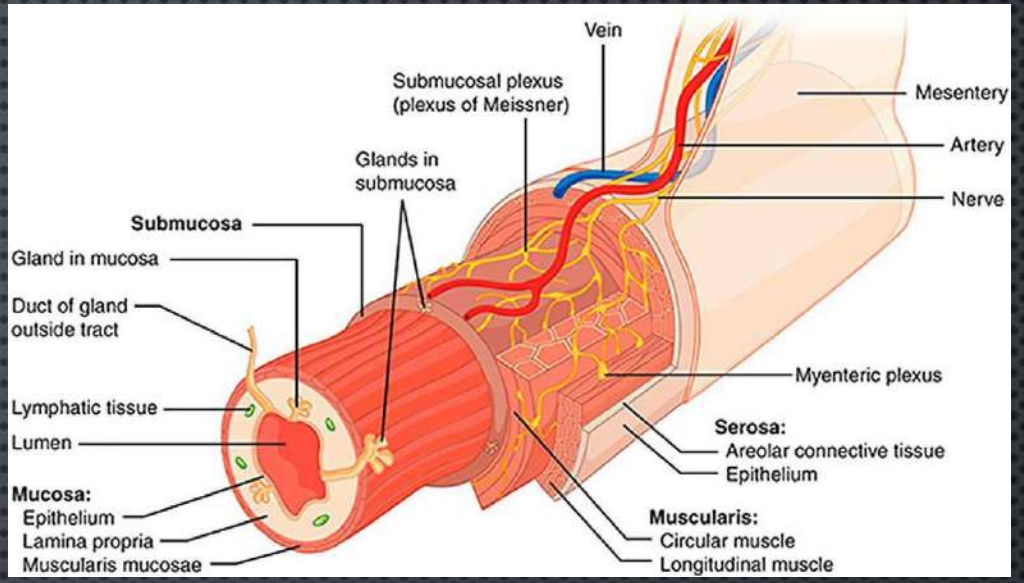
98% DIAGNOSED IN NEONATAL PERIOD

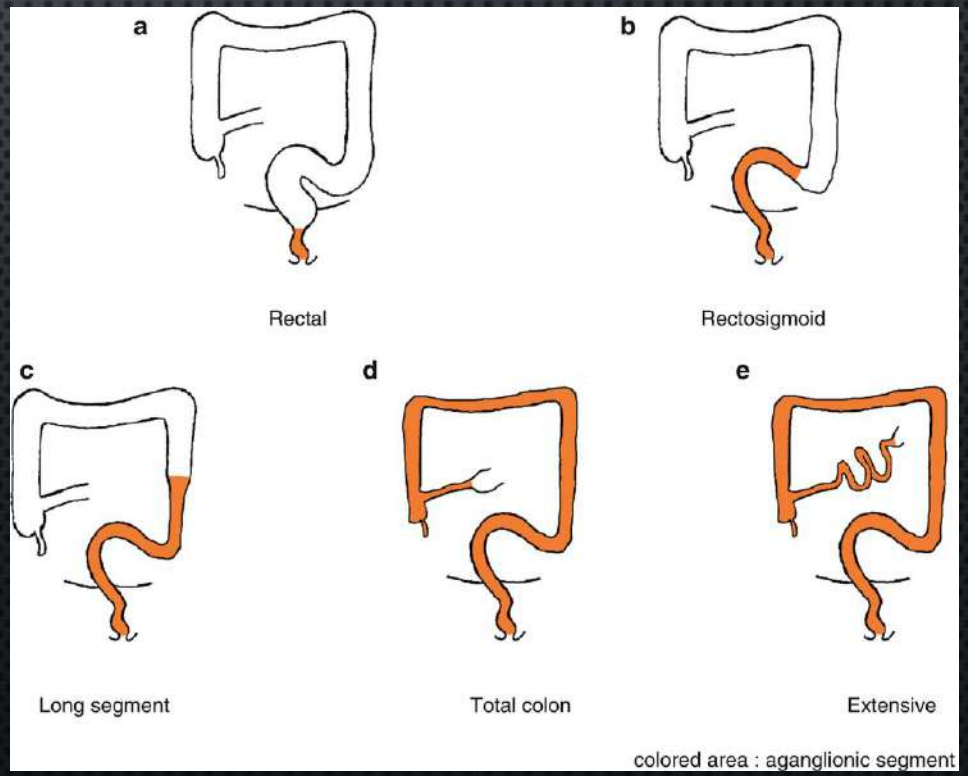
DIAGNOSIS WITH RECTAL BIOPSY

HIGHER INCIDENCE IN POLYNESIAN CHILDREN

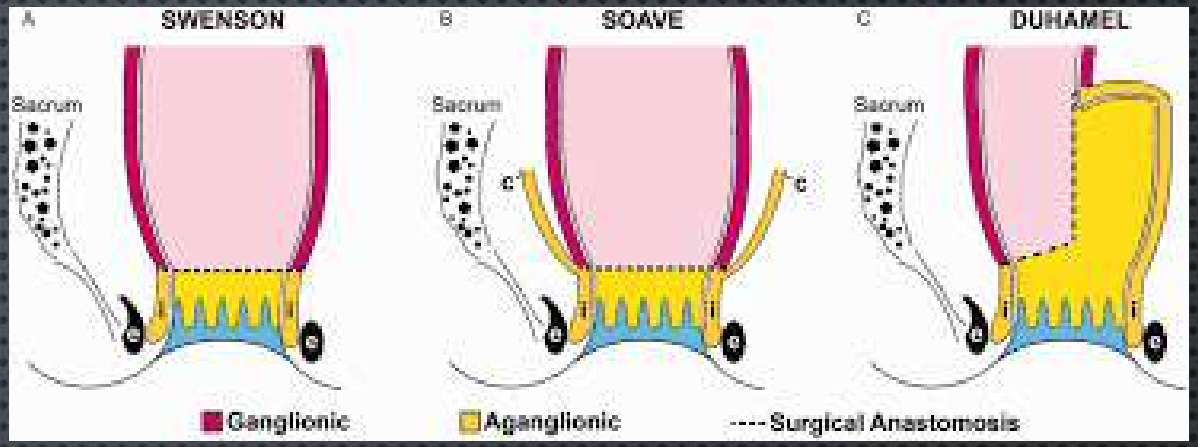
NEONATES USUALLY MANAGED BY WASHOUTS

STOMA NEEDED IN CHILDREN DIAGNOSED AFTER INFANCY AND WHERE WASHOUTS INEFFECTIVE

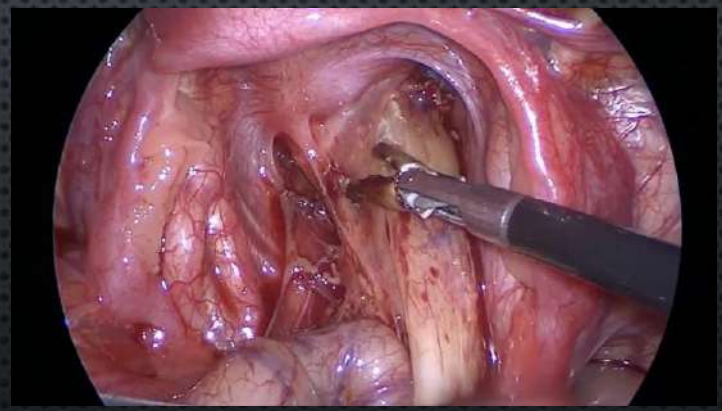


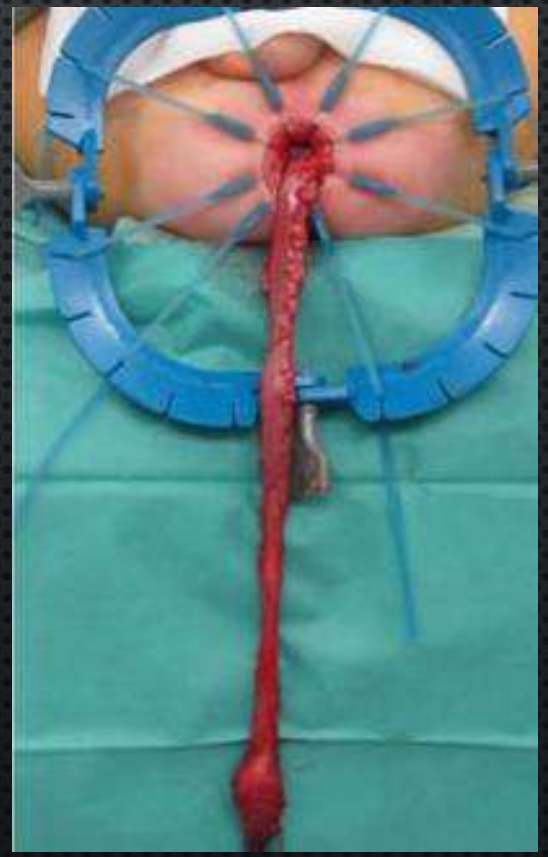


HIRSCHSPRUNG DISEASE

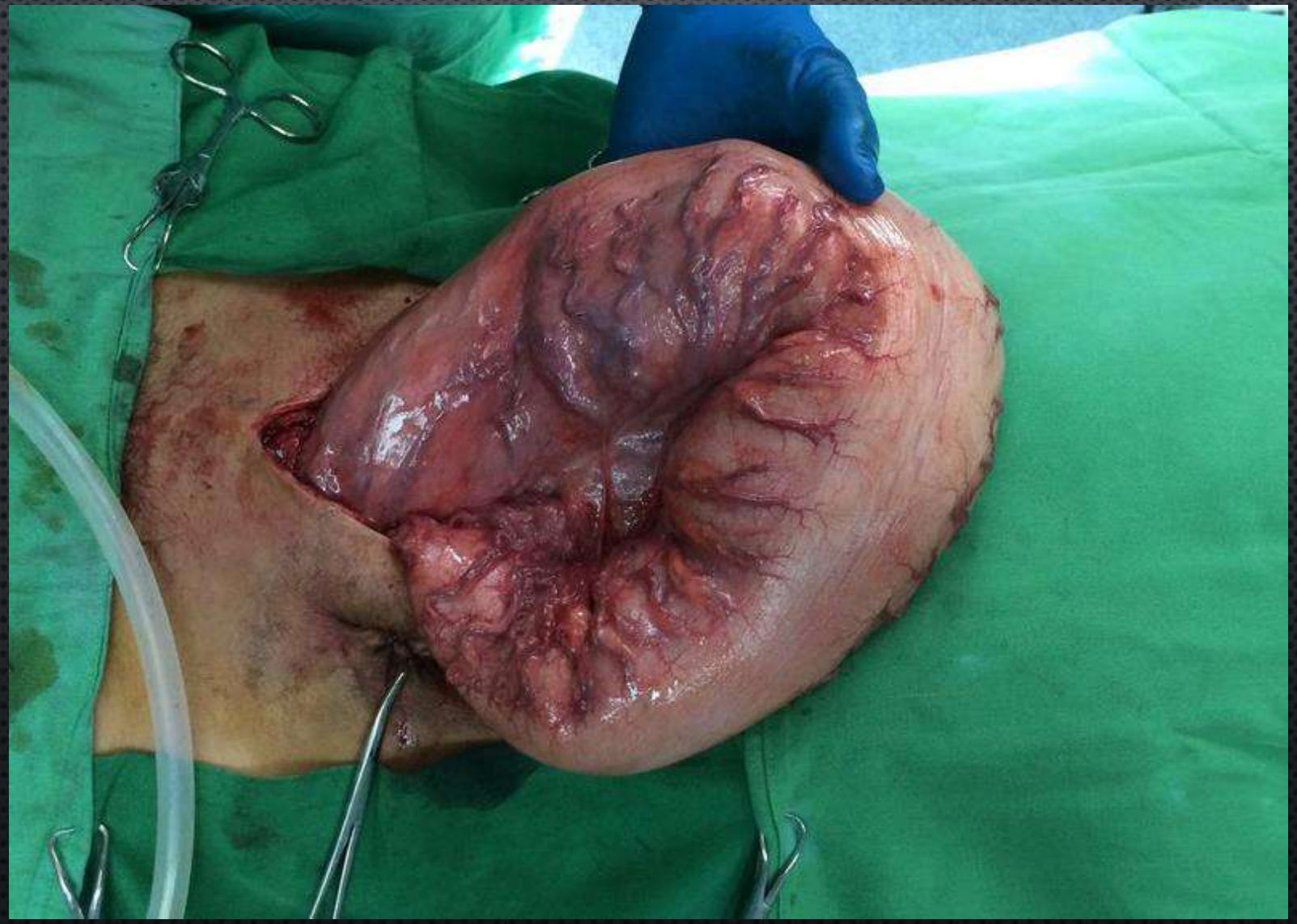


- SURGICAL CORRECTION WITH "PULLTHROUGH" PROCEDURE
- LEVELLING BIOPSIES REQUIRED
- STOMA NOT REQUIRED IN BABIES IF WASHOUTS EFFECTIVE
- REPAIR 3 MONTHS/AGE
- ILEOSTOMY IN TOTAL COLONIC +/- LONG SEGMENT (COLOSTOMY?) WITH RECONSTRUCTION LATER

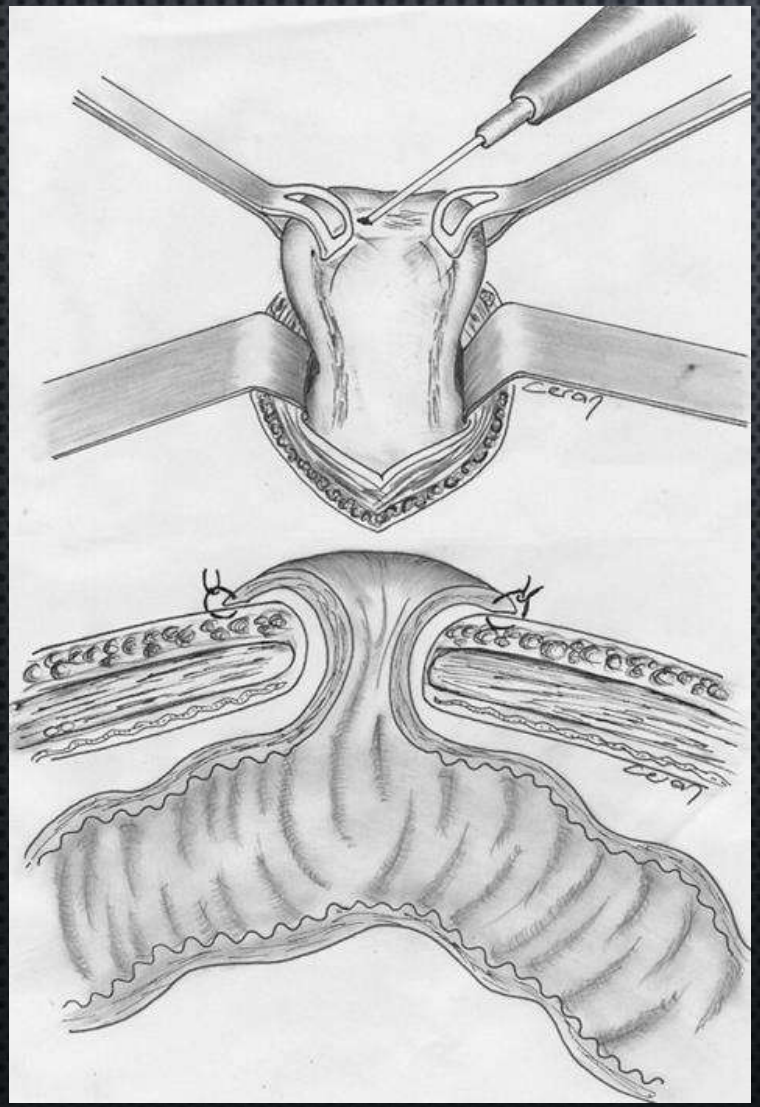


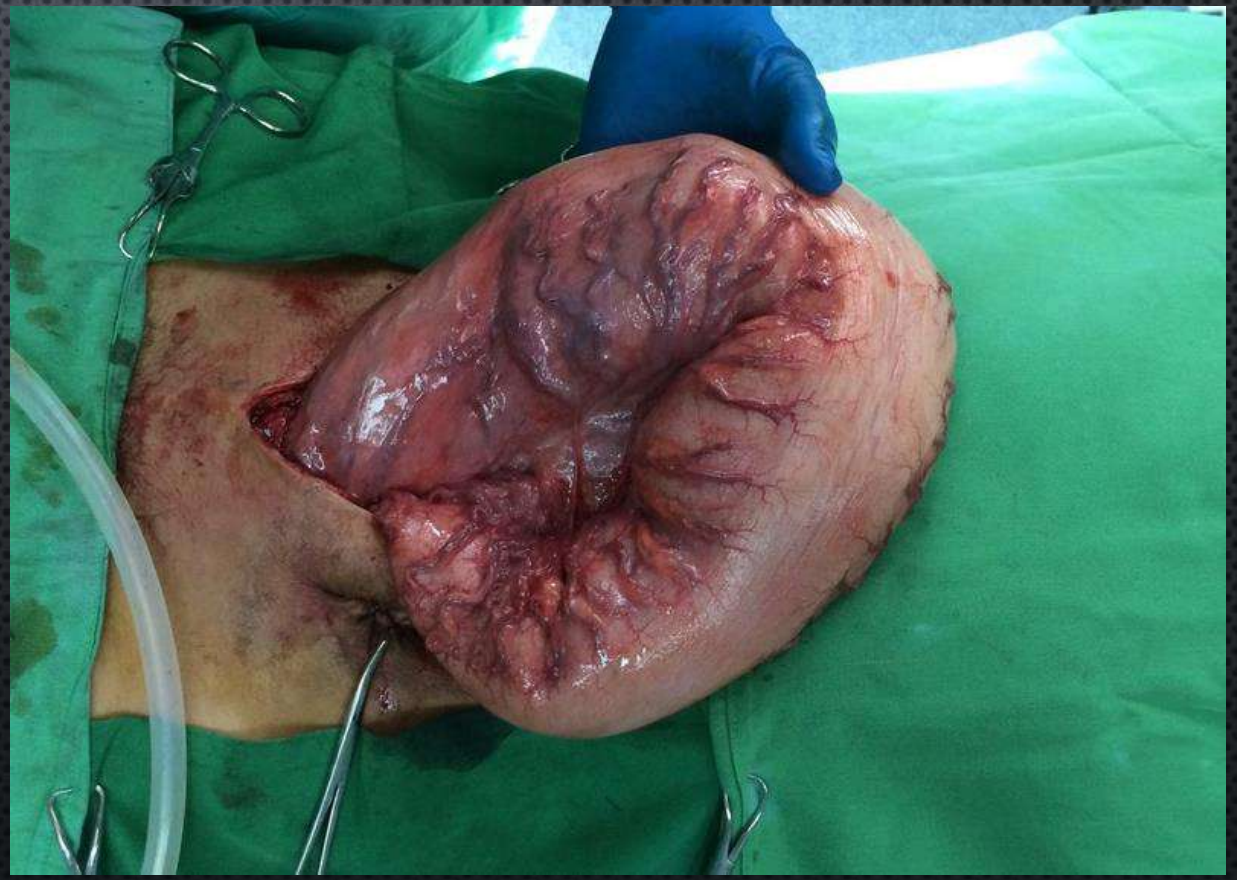


HIRSCHSPRUNG DISEASE IN CHILDREN – LATE DIAGNOSIS

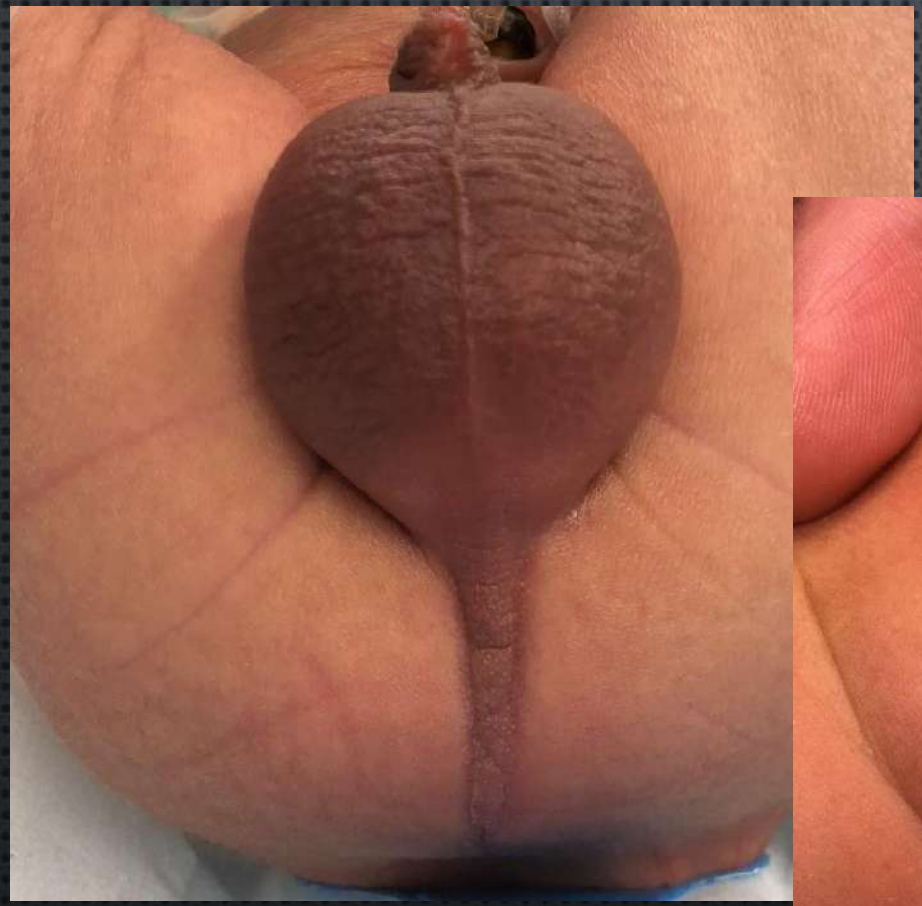


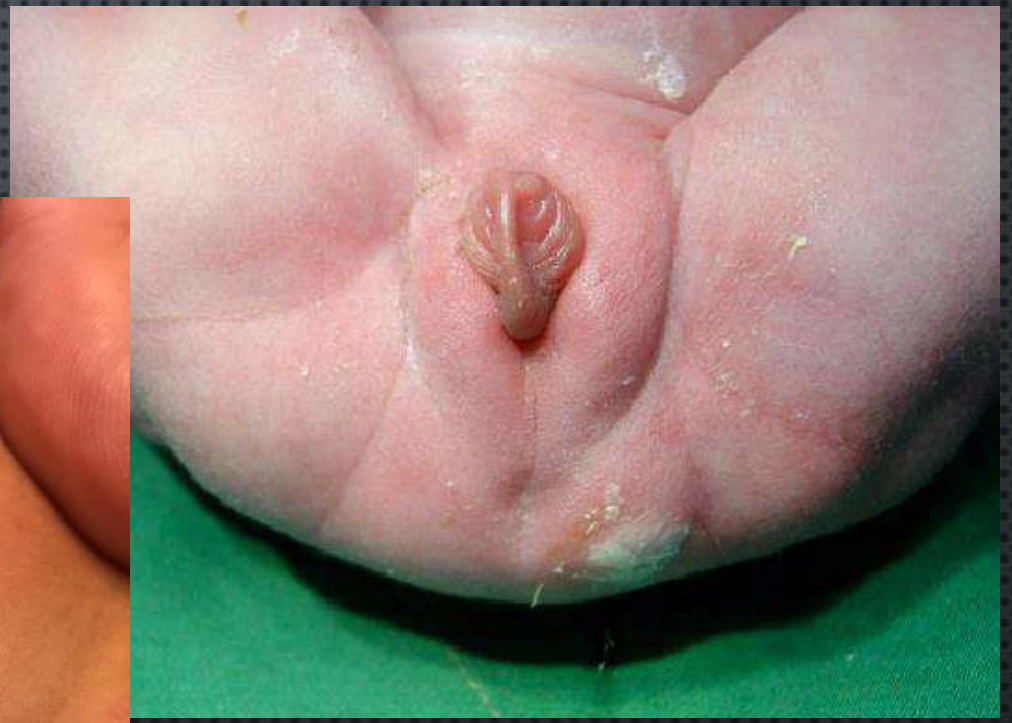
BLOWHOLE COLOSTOMY





ANORECTAL MALFORMATIONS





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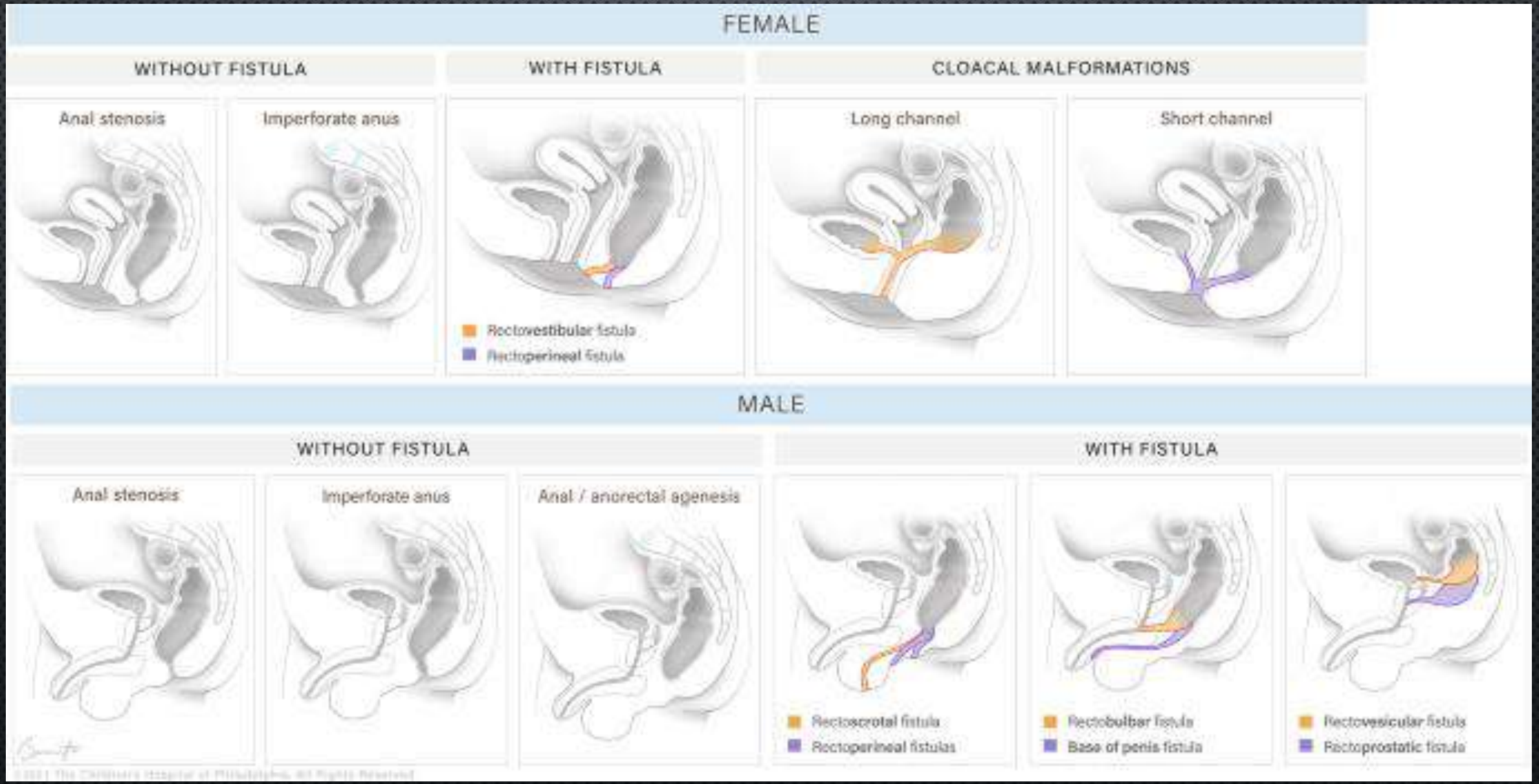

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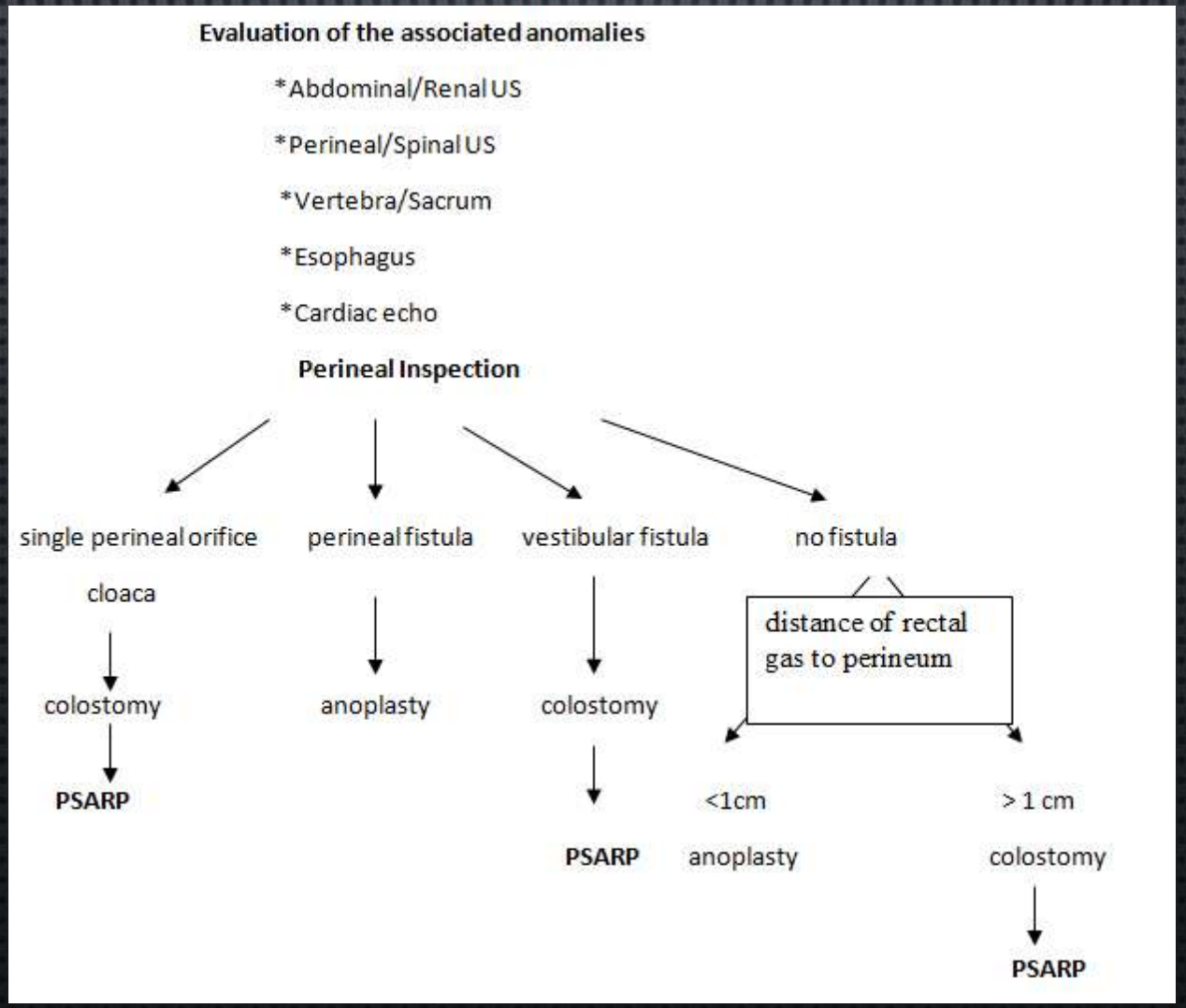
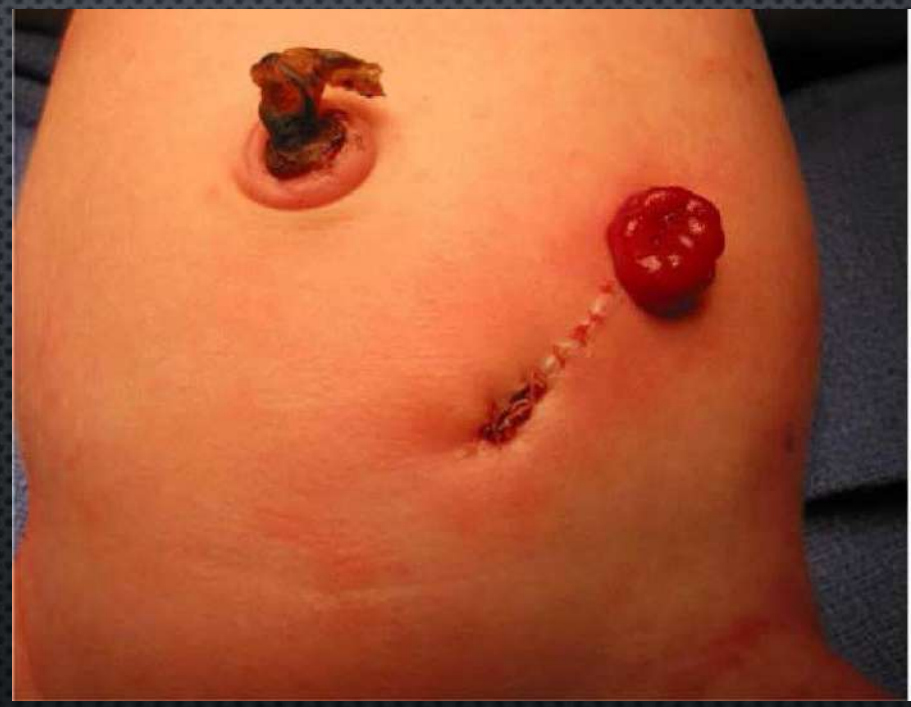
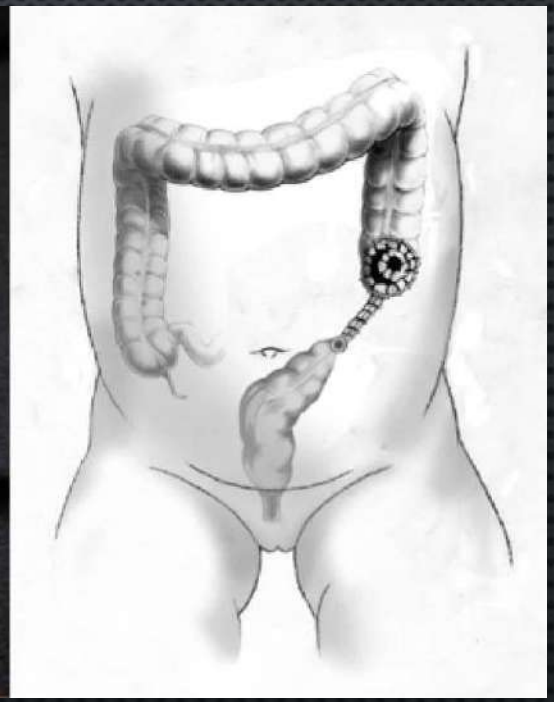


SPLIT SIGMOID COLOSTOMY – ANORECTAL MALFORMATIONS

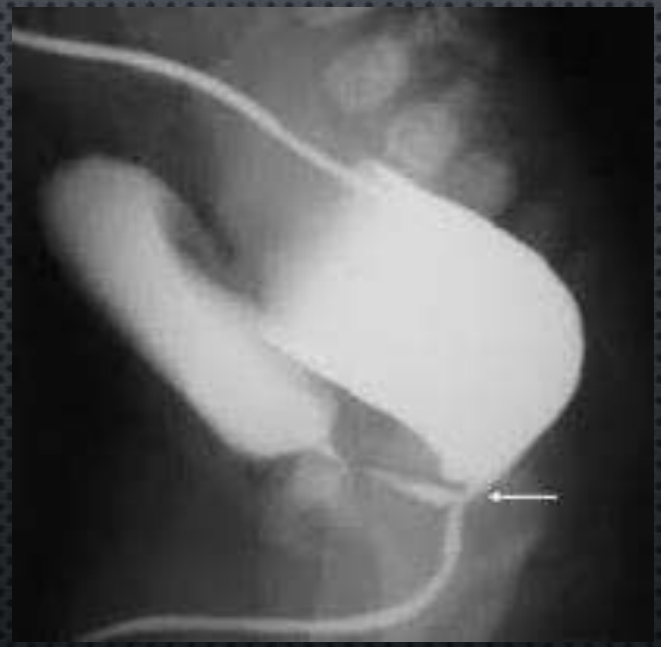
- Stoma in proximal sigmoid
- Mucous fistula small to reduce prolapse
- Mucous fistula outside stoma bag
- Prograde access for constrast study
- Loop colostomy an option – less common

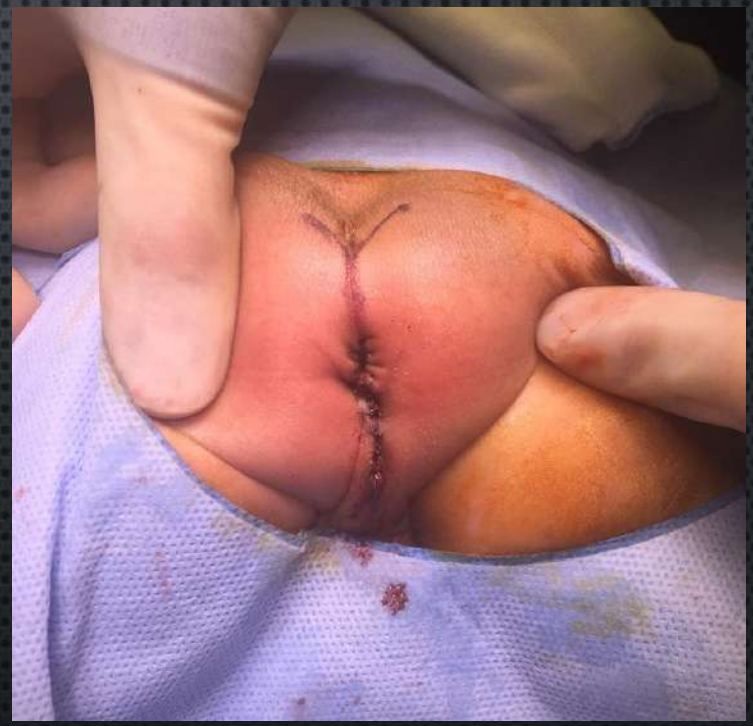




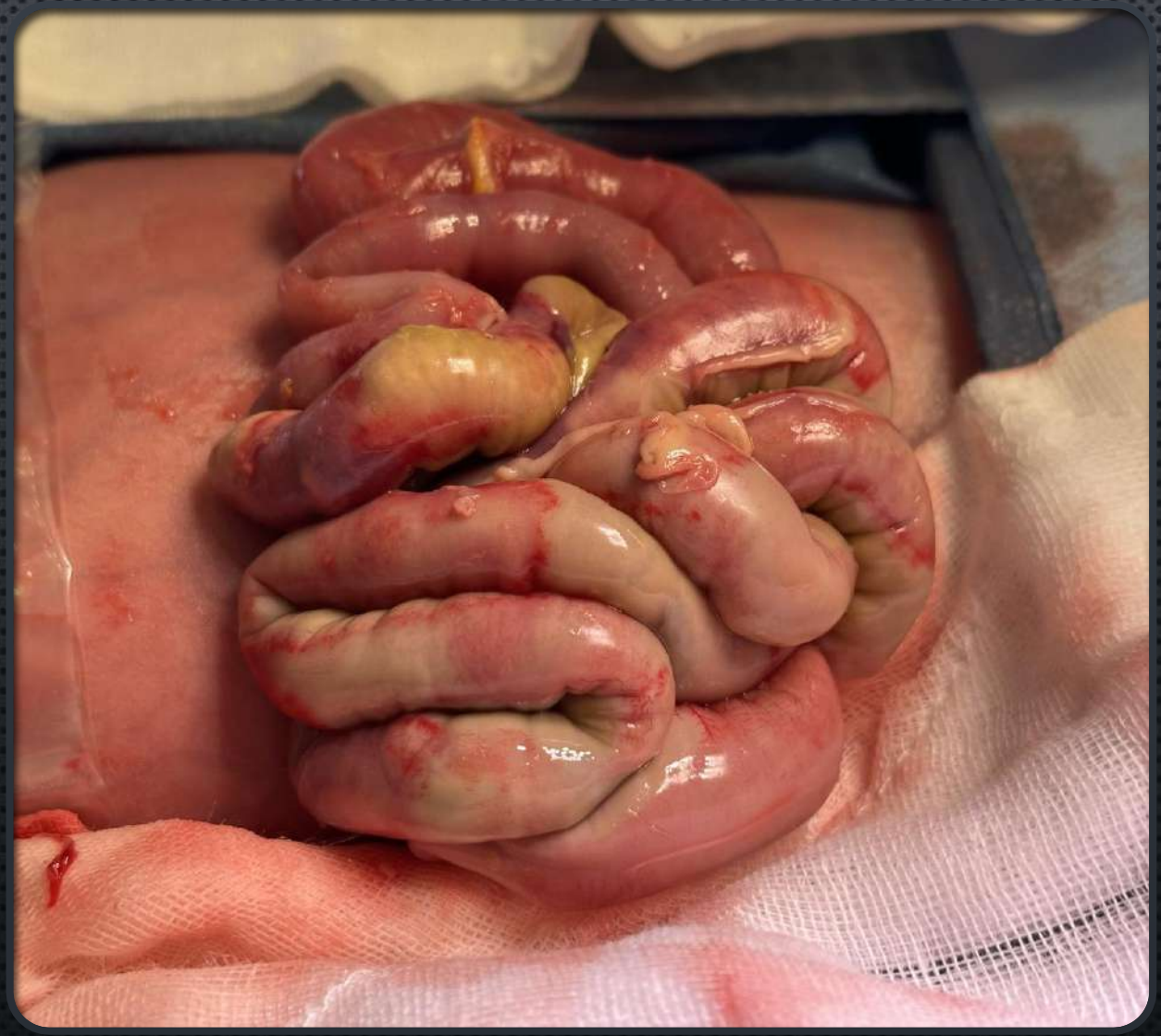
SPLIT SIGMOID COLOSTOMY – ANORECTAL MALFORMATIONS

- Distal loopogram to define anatomy
- Loopogram 4-6 weeks after stoma formation
- Anorectal reconstruction under stoma cover
- Dilatation of anoplasty to achieve patency prior to stoma reversal
- Stoma reversal typically 2-3 months after reconstruction



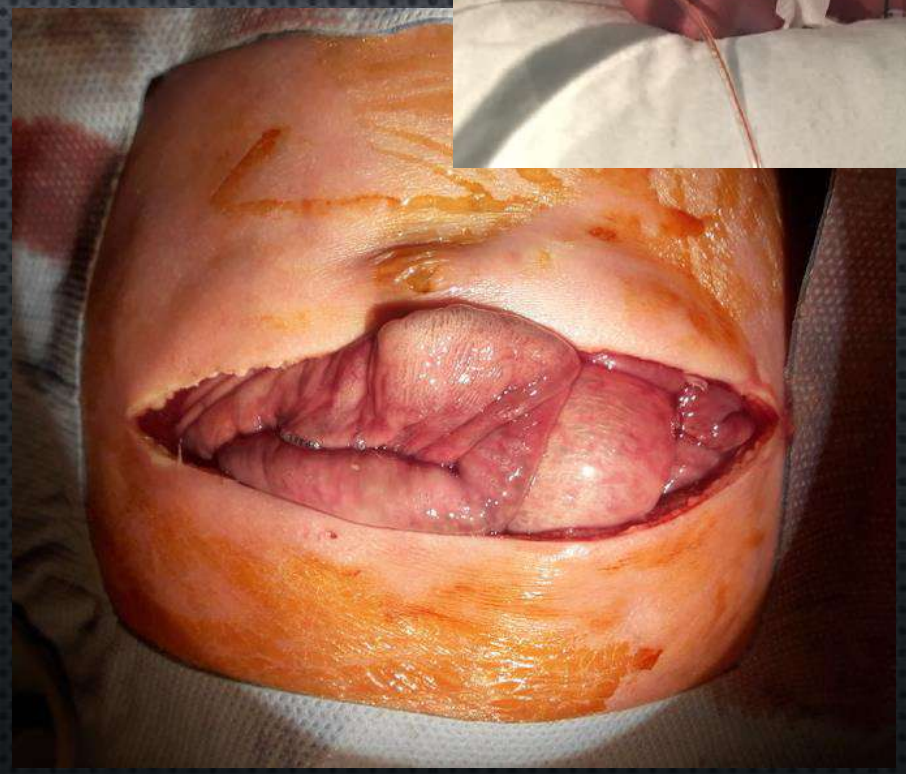


NECROTISING ENTEROCOLITIS



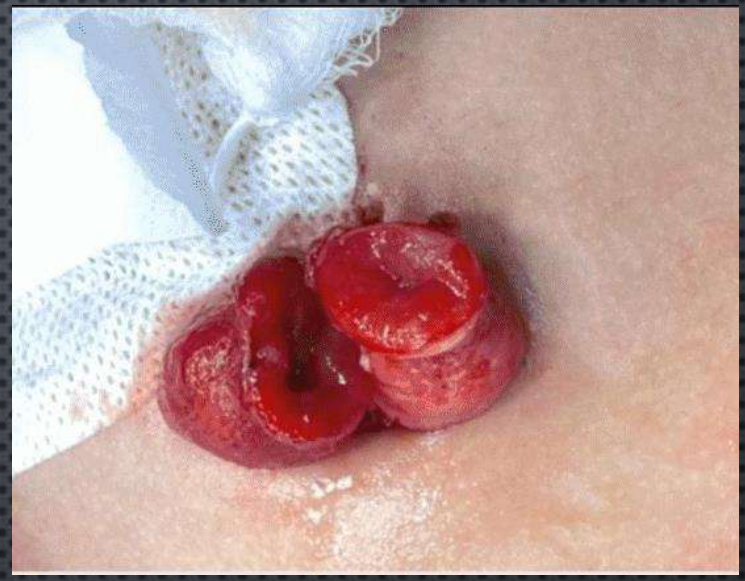
NECROTISING ENTEROCOLITIS

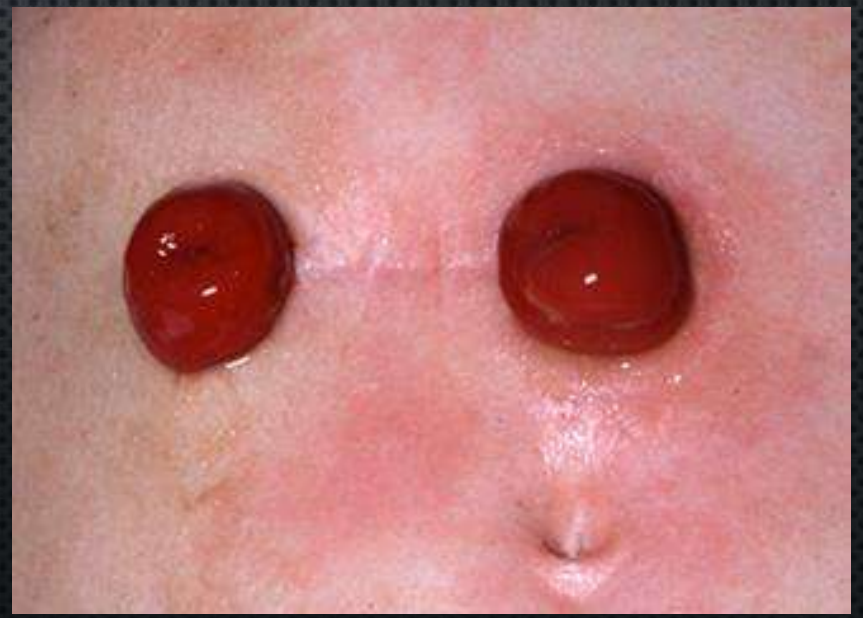
- Stressed neonates - preterm, cardiac
- Intestinal blood flow, substrate, bacteria
- 25% need surgery
- Indications: perforation, ongoing clinical deterioration
- Disease may be focal, widespread, extensive
- Virtually all need bowel resection
- Disease is evolving at time of surgery
- Baby is critically ill and unstable



NECROTISING ENTEROCOLITIS

- Stomas usually within laparotomy wound
- Wound infections problematic – cefazolin on induction of anaesthesia
- Stomas usually divided
- May be multiple
- May stenose – progressive disease, critical gut length, haemodynamic instability
- Mucous fistula patency <75%
- Stomas may be unavoidably proximal





NECROTISING ENTEROCOLITIS – STOMA CLOSURE

Multiple factors. Influence timing:

- Age
- Weight
- Comorbidities
- Progress
- Social
- Type of stoma
- Stoma complications

Contrast study to assess distal bowel prior to closure

- Prograde
- Retrograde

Often requires laparotomy