

SURGICAL INTERVENTION IN SMALL BOWEL CROHN'S DISEASE

Epidemiology

- Prevalence : 4 per 100,000
- 30% after 10 years; 78% after 20 years; 90% by 30 years
- Requirement for surgery: Ileocolic > SB only > colon/rectum

Pathophysiology

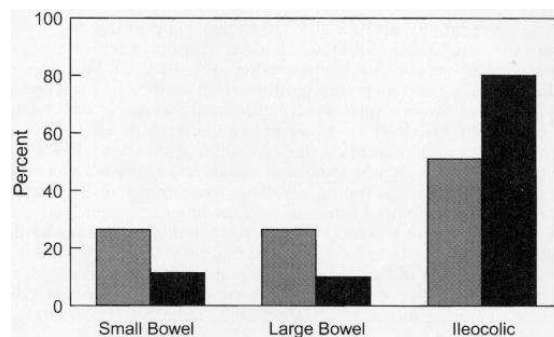
- Exact defect in immune regulation is still unknown
- T_h cell mediated immune response is dominant (IFN-gamma and TNF-alpha)
- Ileocolic > SB alone > Colon/rectum > Perianal > Upper GI
- Non-Stenotic phase - blunting, thickening, and straightening of the valvulae conniventes
- Granulomas and lymphoid aggregates distal to the site of active disease
- Transmural fibrosis, smooth-muscle proliferation in the submucosa, and the development of stenosis
- Penetrating ulcers, perforation, abscess, fistulae
- Fat wrapping associated with transmural inflammation, fibrosis and stricture formation

Role of Surgery in Crohn's Disease

- **SURGERY DOES NOT CURE CROHN'S**
- Relief of symptoms and an improvement in the quality of life
- Shortened bowel, exposure to postoperative complications
- Usually reserved for complications of the disease

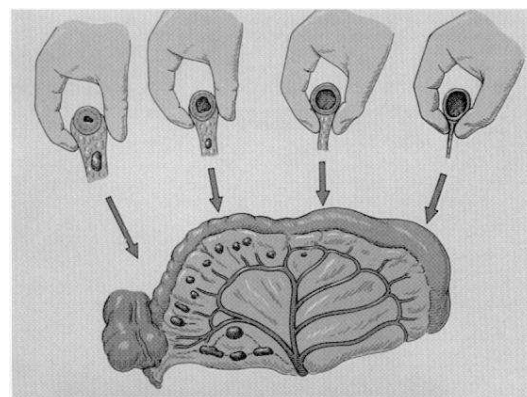
Indications for Surgery

- Intractable disease – pain, diarrhea, wt. loss
- Obstruction
- Fistula
- Abscess
- Perforation
- Perianal disease
- Hemorrhage
- Sepsis
- Malignancy
- Growth retardation



Surgical Planning

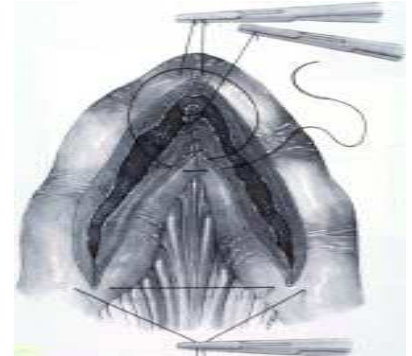
- Establish extent of disease – SBS/ colonoscopy, CT, fistulogram
- Consider future operations – 25-60% have recurrent disease and 15-40% require surgery
- Possibility of stoma sites and marking
- Preop TPN; ???Bowel prep
- Midline laparotomy usually the best approach



- **Limited resection – preserve as much SB as possible**
- Laparoscopy

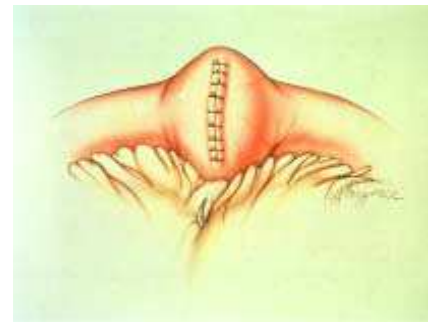
Obstruction

- Failure to resolve with conservative management
- Increasing frequency of obstructive episodes
- Clinical deterioration
- Location, number of involved segments, length of skip lesions
- Presence of acute inflammation, abscess, perforation
- Previous resections
- Options - resection, bypass, stricturoplasty, proximal diversion
- Short bowel syndrome in 1.5-12% of patients



Fistula

- Enterointeric in 33% ; Enterocutaneous in 15%
- Consider source and target organs
- Enterointeric – not absolute indication for surgery
- Emergent surgery for sepsis rarely needed
- Otherwise reduce inflammation and operate urgently or electively
- Options – resection vs. proximal diversion
- Remicaid – proven benefit in perianal fistulizing Crohn’s



Abscess

- Emergent/urgent operation not usually necessary
- Worsening pain, sepsis
- IV antibiotics
- Percutaneous drainage followed by urgent/elective surgery
- Diversion vs. resection

References

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