Overview

- Introduction
- Important Features
- Clinical Presentation
- Evaluation
- Medical Treatment
- Surgical Treatment
- Cases
Introduction

- Two major types of IBD: Crohn’s and ulcerative colitis
- 15% pts indeterminant colitis
- Important to distinguish for treatment
- Etiology unknown
- Can occur at any age, but usually young adults affected
Ulcerative Colitis

- Inflammation – mucosal, rectum, continuous
- Involvement – no perianal dz, no small bowel
- Histology – crypt abscesses, pseudopolyps
- Extraintestinal – skin, eyes, joints, sclerosing cholangitis
- Risk for cancer – 1%–2% per year after 10y
Crohn’s

- Inflammation – transmural, noncontinuous
- Involvement – mouth to anus, 25% SB alone, 50% SB/LB, 25% colon alone
- Histology – granulomas, linear and transverse ulcers, cobblestone
- Extraintestinal – same
- Risk for cancer – slightly less
Presentation

- **UC**
  - bloody diarrhea, mucus and pus PR
  - cramping abdo pain
  - malaise, fever, weight loss, anemia
  - fulminant colitis with toxic megacolon

- **Crohn’s**
  - diarrhea
  - cramping abdo pain, RLQ pain, abscess, fistulas
  - malaise, fever, weight loss, leukocytosis
  - perianal disease
Evaluation

- UC
  - Proctoscopy with mucosal biopsy
  - Colonoscopy, Barium enema
  - AXR, UGI & SBFT
  - Stool samples

- Crohn’s
  - Same, CT if suspect abscess
Medical Treatment

- Steroids
- Sulfasalazine
- Aminosalicylates
- Immunosuppressive agents
  - 6-Mercaptopurine
  - Azathiprine
  - Methotrexate
  - IV Cyclosporine
- Infliximab
- Antibiotics
Surgical Treatment - UC

- **Indications**
  - Hemorrhage
  - Fulminant colitis or toxic megacolon
  - Debilitating disease not responding to med Rx
  - Stricture, dysplasia or cancer

- **Procedures**
  - Proctocolectomy with ileostomy
  - Proctocolectomy with ileal pouch anal anastomosis (IPAA)
  - Colectomy with rectal stump
Surgical Treatment – Crohn’s

- **Indications**
  - Obstruction
  - Anorectal abscesses or fistulas
  - Abdominal abscesses, fistulas
  - Debilitating disease
  - Fulminant colitis, hemorrhage, cancer

- **Procedures**
  - Segmental resections (SB or LB)
  - Strictureplasty
  - Proctocolectomy with ileostomy
  - Total colectomy +/- ileostomy
Perianal fistula in patient with Crohn's disease

- evaluate small and large intestine; treat proximal disease
- drain perianal sepsis
- EUA with biopsies

Rectum involved with Crohn's disease

- symptoms significant
  - internal os not seen: mushroom catheter drainage
  - internal os seen: place seton
- symptoms minimal
  - conservative treatment

Rectum not involved with Crohn's disease

- symptoms minimal
- symptoms significant (fistula)

Transverse or supra sphincteric

- extra sphincteric (e.g. from ileum, sigmoid)
  - resect proximal disease
- flap repair possible
- flap not possible

Superficial or intersphincteric

- high or unknown risk for incontinence
  - flap repair possible
  - flap not possible
- low risk for incontinence
  - flap possible
  - fistulotomy

Seton or staged fistulotomy

Rectal advancement flap

Place seton

FIGURE 33.8. Algorithm for the treatment of abscesses and fistulas from perianal Crohn's disease. [Reprinted with permission from Operative Strategies in Inflammatory Bowel Disease, Michelassi F and Milsom JW, editors. ©1999 Springer-Verlag New York, Inc.]
Case 1

24 y.o. woman with crampy abdo pain, nausea and vomiting.
Two-year history of Crohn’s of terminal ileum.
No steroids for 6 months.
O/E: distended, no fever, no localized pain
Labs: WBC 13
Case 1

Dx: SBO
Rx: TPN, bowel rest
Plan to feed when improves.
Treat for three weeks and no sign of resolution of obstruction.
What next?
Case 1

Principles:

- Relieve obstruction
- Preserve as much normal bowel as possible

At laparotomy, almost 2 feet terminal ileum thick fibrotic stricture, multiple short strictures throughout remaining jejunum and ileum.
Figure 1
Figure 5
Finney stricturoplasty. Enteroenterostomy is performed after the affected bowel is folded onto itself in a U-shape. *(From Hurst RD, Michelassi F: World J Surg 22:359, 1998.)*
Figure 4
Combination stricturoplasty. Longitudinal enterotomy made on the antimesenteric side of two consecutive strictures is closed transversely starting at the midpoint of the intervening grossly normal bowel segment. (From Fazio VW, Tjandra JJ: Dis Colon Rectum 36:72, 1993.)
Figure 6
Side-to-side isoperistaltic stricturoplasty. A long side-to-side isoperistaltic enteroenterostomy is performed after dividing the diseased intestinal segment and moving the proximal loop over the distal one in a side-to-side fashion. (From Michelassi F: Dis Colon Rectum 39:345, 1996.)
Issues

- Surgery in diseased bowel
- Risk of recurrence
- Risk of adenocarcinoma
- Function of diseased bowel
- Regression of Crohn’s at stricturoplasty site
Case 2

29 y.o. woman several months of abdominal cramps, bloody diarrhea, 5-lb weight loss.

Colonoscopy/ biopsy confirms UC. Treated medically.

Two months later returns to ER acutely ill with bloody diarrhea, abdo pain, temp 38.8, BP stable, distended, tender.

What next?
Case 2

Trial of medical treatment with NG, NPO, TPN, IV fluids, Abx, IV steroids, and close observation.

What if:

a. Free air on upright CXR
b. Air in the wall of the colon
c. No improvement in the next 3 days
Emergency Surgery

- Subtotal colectomy with end ileostomy
  - Toxic megacolon
  - Ongoing hemorrhage
  - Free perforation
- Controversy
  - Ongoing rectal hemorrhage is rare
Case 3

36 y.o. woman with long-standing diagnosis of UC. Began having colonoscopy every 1-2 years beginning after 8 years of disease. Severe dysplasia evident on several biopsies. What are the options? Proctocolectomy with ileal pouch anal anastomosis performed.
Controversy

- Distal rectal mucosectomy (familial polyposis, dysplasia, or carcinoma)
- Ileal pouch configurations
- Temporary diverting loop ileostomy
Figure 1
Ileal pouch configurations as clinically applied to patients undergoing ileal-pouch-anal anastomosis. (Reprinted with the permission of The Cleveland Clinic Foundation.)
Case 3

She returns 6 months later with fever, blood-tinged diarrhea, and pain on defecation. Endoscopy shows hemorrhagic mucosa with edema and small ulcerations. Treated with Flagyl and it resolves.
Complications

- Mortality rate 1%
- Autonomic nerve damage – bladder dysfunction, erectile problems, or impotence (1-2%)
- Pelvic sepsis with pouch leaks (8-10%) – diverting ostomy, drain abscesses, abx, local repair, reconstruct
- Pouchitis (25-30%)
- SBO (20%)
Case 4

25 y.o. male with 36 hour history RLQ pain, fever, anorexia. RLQ tenderness with guarding.

In OR, normal appendix, inflamed ileum with fat wrapping, thickened intestinal wall, enlarged nodes.

What next?
Controversy

- Removal appendix so no future diagnostic dilemmas
- No biopsy and no appendectomy if cecum involved b/c increased risk fistulas
Case 5

26 y.o. woman with Crohn’s RLQ pain, diarrhea, fever, RLQ tenderness and palp mass.

CT abscess RLQ

What next?

CT-guided percutaneous drain placed and abscess resolves
Summary

- Treatment of IBD is primarily medical
- Surgery for UC is curative and eliminates risk of cancer
- Surgery for Crohn’s is NOT curative and should be performed for complications and limited to diseased bowel