Gastrointestinal Inflammation

- Mucosal changes
- Indirect evaluation in most cases
- Evaluate lumen and effect on lumen
- Degree of mucosal involvement determines the imaging findings
  - Superficial – little effect
  - Penetrating – affect adjacent areas

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Gastrointestinal Inflammation

- Superficial process
  - Little imaging finding
  - Spasm
  - Mucosal edema and irregularity
- Penetrating process
  - Ulcer development
  - Perforation
  - Adjacent inflammatory process

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Gastric Ulcer

- Barium projection from lesser curve – ulcer crater (arrow)
- Line of edema (arrowheads)

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Ulcer In Stomach Wall

- Silhouette
- Extension of barium outside of the expected wall

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Gastric Ulcer

- Overhead film with ulcer on greater curve (arrows)
- Lucent halo of edema base of ulcer (arrowhead)
- Ulcer extends outside expected mucosal margin
- Incidental note of contrast in gallbladder (*)
**Pyloric Channel Ulcer**
- Spot film
- Projection of barium from pyloric channel
- Edematous halo

**Post-bulbar Doudenal Ulcer**
- Barium collection just beyond the duodenal bulb greater curve aspect (large arrow)
- Probable small ulcer lesser curve aspect as well (small arrow)

**Inflammatory Lesions of the Colon**
- Diverticulosis and Diverticulitis
- Ulcerative colitis
- Regional enterocolitis (Crohn’s disease)

**Inflammatory Lesions of the Colon**
- Appearance
  - Narrowing due to spasm, stricture, extrinsic mass
  - Dilatation resulting from partial/complete obstruction
  - Mucosal changes: edema, hypertrophy, ulceration, etc.

**Diverticulosis, Diverticulitis**
and their complications
- Diverticula
  - Mucosa protrudes out of bowel lumen through a weak point in muscle layer
- Diverticulosis
  - Multiple diverticula

**Diverticulosis, Diverticulitis**
and their complications
- Diverticulitis
  - Complication of diverticulosis
  - Penetrating inflammatory process
  - Causes perforation of diverticulum
  - Inflammatory process usually localized and forms pericolic abscess
  - Can develop fistulas to vagina, bladder, etc.
Diverticulosis
- Single contrast barium enema
- Multiple outpouchings representing diverticula
- More prominent descending and sigmoid colon

Diverticulitis
- Oblique film
- Extravasation from lumen
- Abscess cavity with barium

CT of Diverticulitis
- Inflammatory process in the mesentery (diffuse gray area) with air collections (arrows)

Diverticulitis – CT Scanning
- CT is useful study
- Irregular gray density represents inflammatory change in the RLQ in the area of the appendix
- May see stone in appendix

Appendicitis / Appendicolith
- Calcific density RLQ

Appendicitis
- CT is useful study
- Irregular gray density represents inflammatory change in the RLQ in the area of the appendix
- May see stone in appendix