

Diseases of the intestine Lab

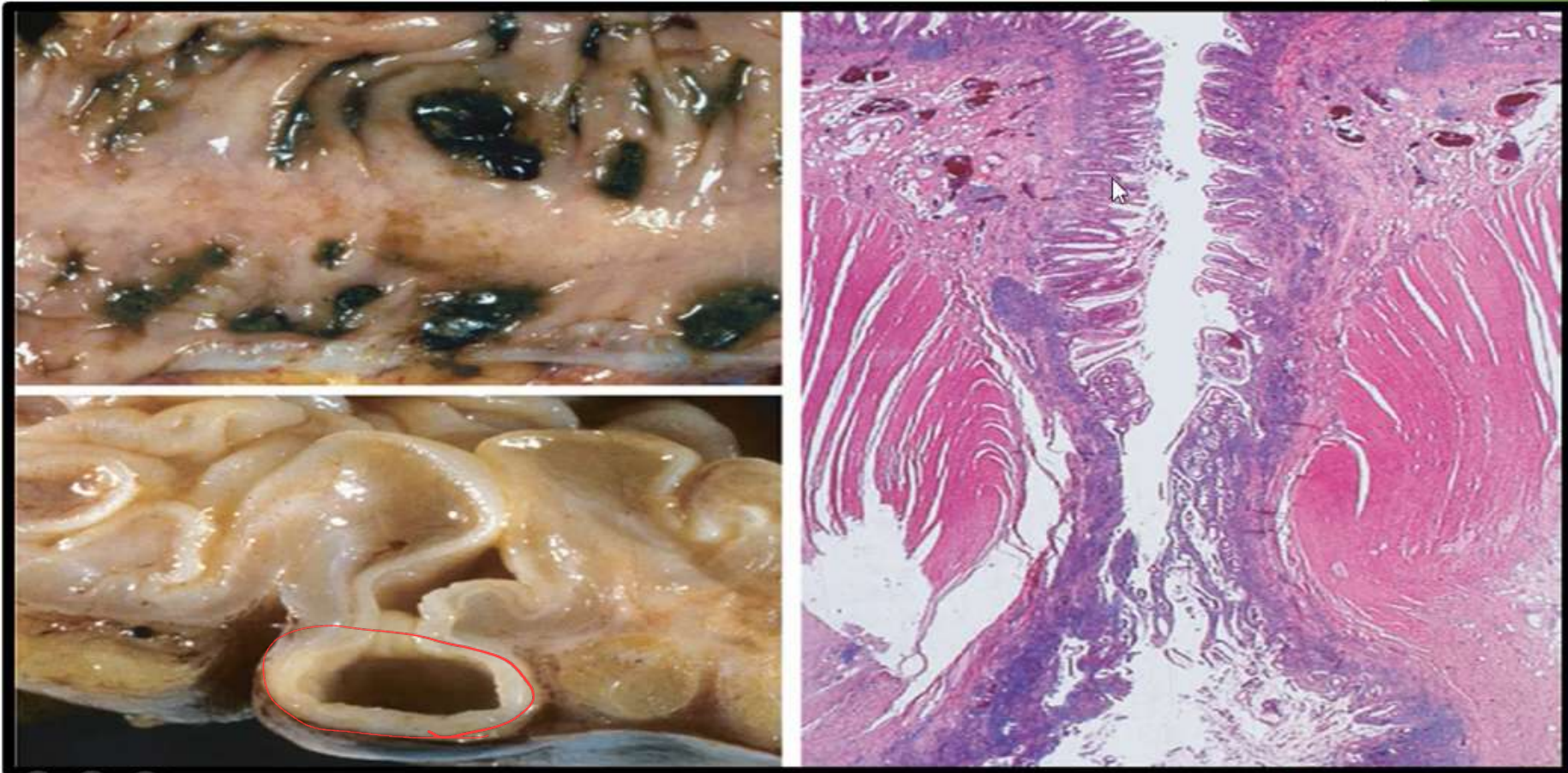
Sura al Rawabdeh MD

April 2022

Sigmoid Diverticulitis

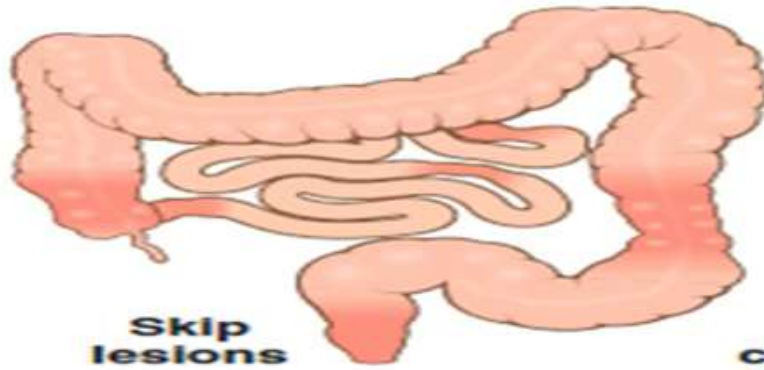
⇒ Most common site? Sigmoid colon

Diverticulum ⇒ invagination of the Mucosa into the Muscularis propria in area of weakness.

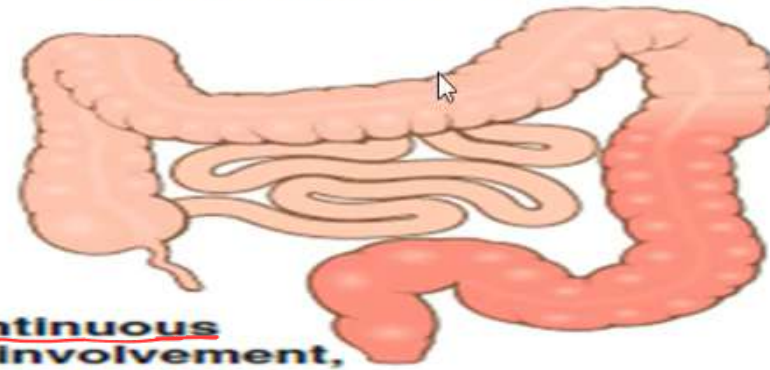


Inflammatory Bowel Disease

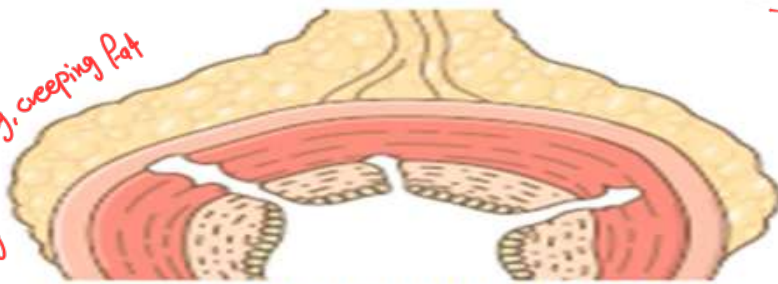
CROHN DISEASE



ULCERATIVE COLITIS



Fissuring, creeping fat
giving



always

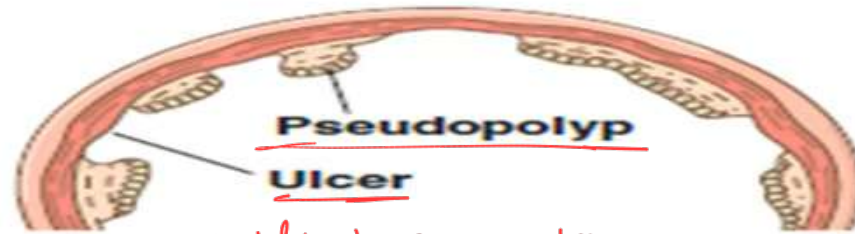
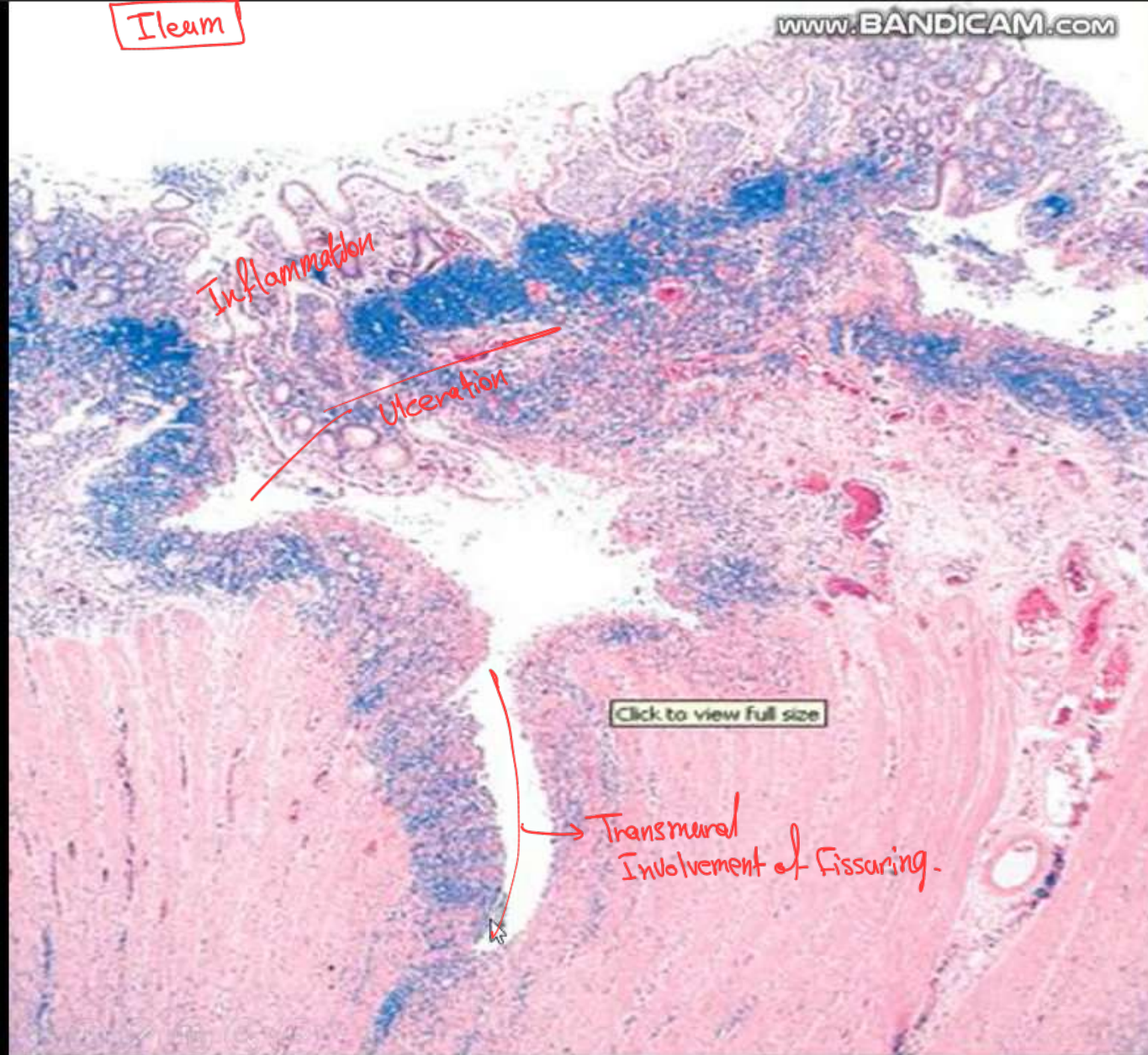


Figure 14-26 Distribution of lesions in inflammatory bowel disease. The distinction between Crohn disease and ulcerative colitis is based primarily on morphology.

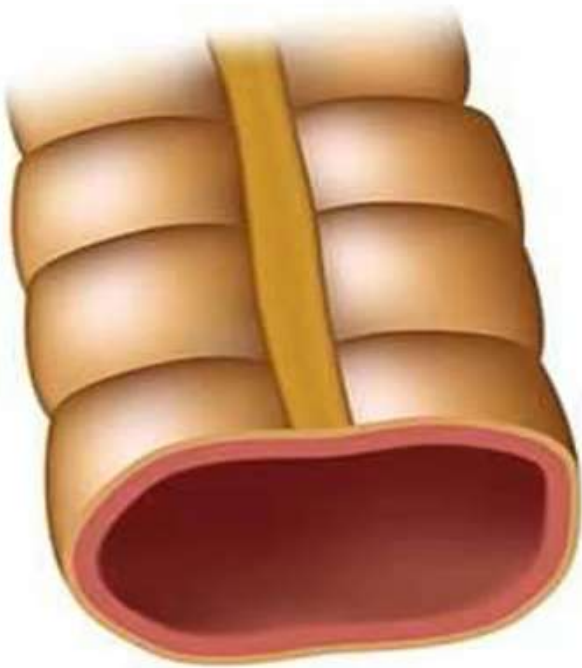
Ileum

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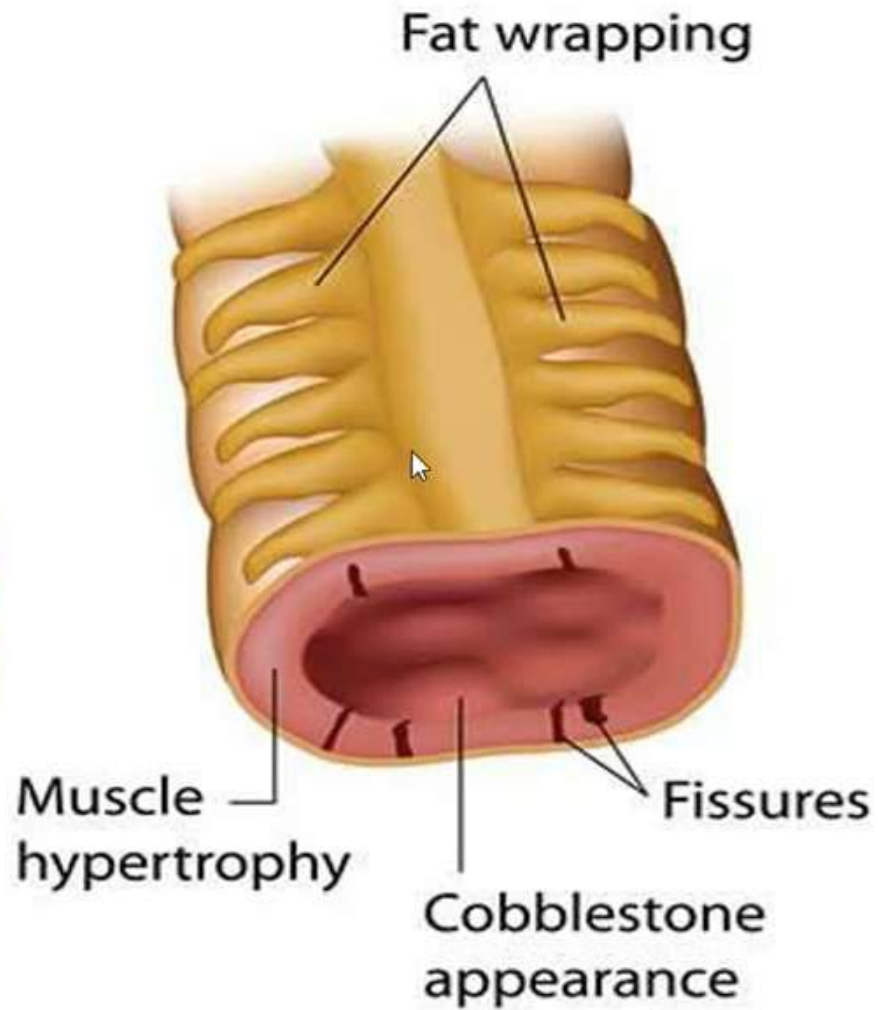


Crohn disease of the colon showing a deep fissure extending into the muscle wall, a second, shallow ulcer (upper right), and relative preservation of the intervening mucosa. Abundant lymphocyte aggregates are present, evident as dense blue patches of cells at the interface between mucosa and submucosa

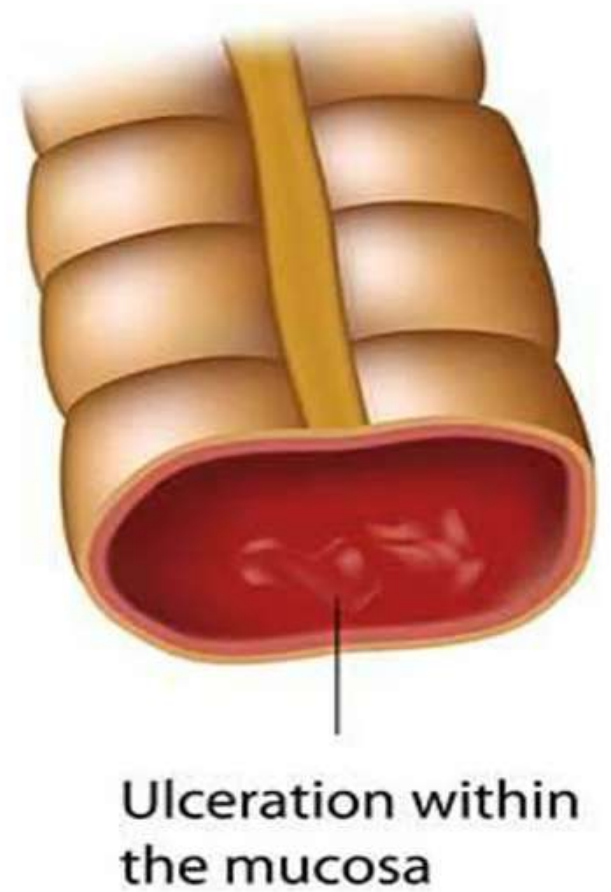
Healthy



Crohn's disease



Ulcerative colitis



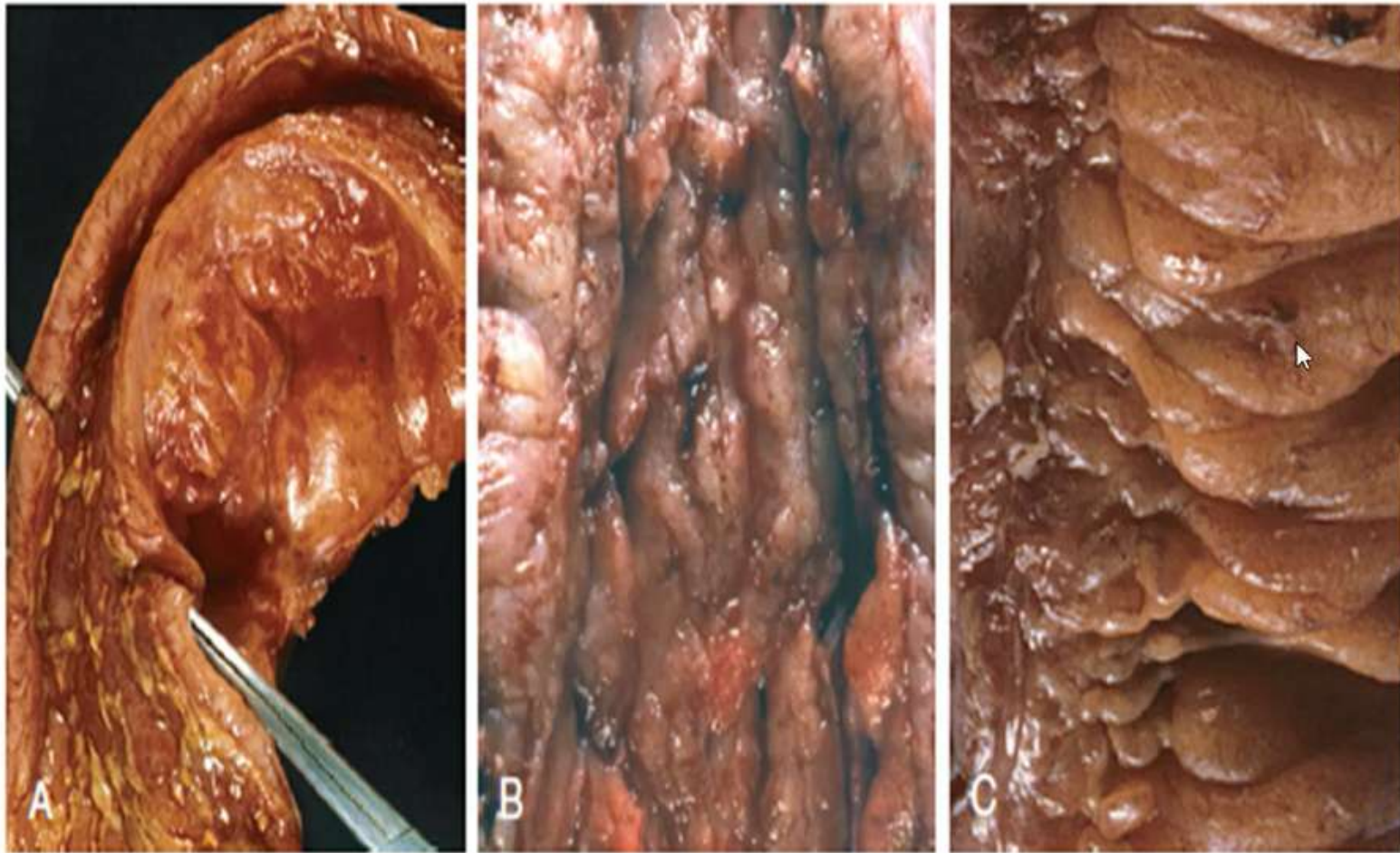


Figure 14-28 Gross pathology of Crohn disease. A, Small intestinal stricture. B, Linear mucosal ulcers and thickened intestinal wall. C, Creeping fat.

Ulcerative colitis ⇒ The Mucosa is affected here more (Ulcerations)

Resulting
↓

Pseudopolyp

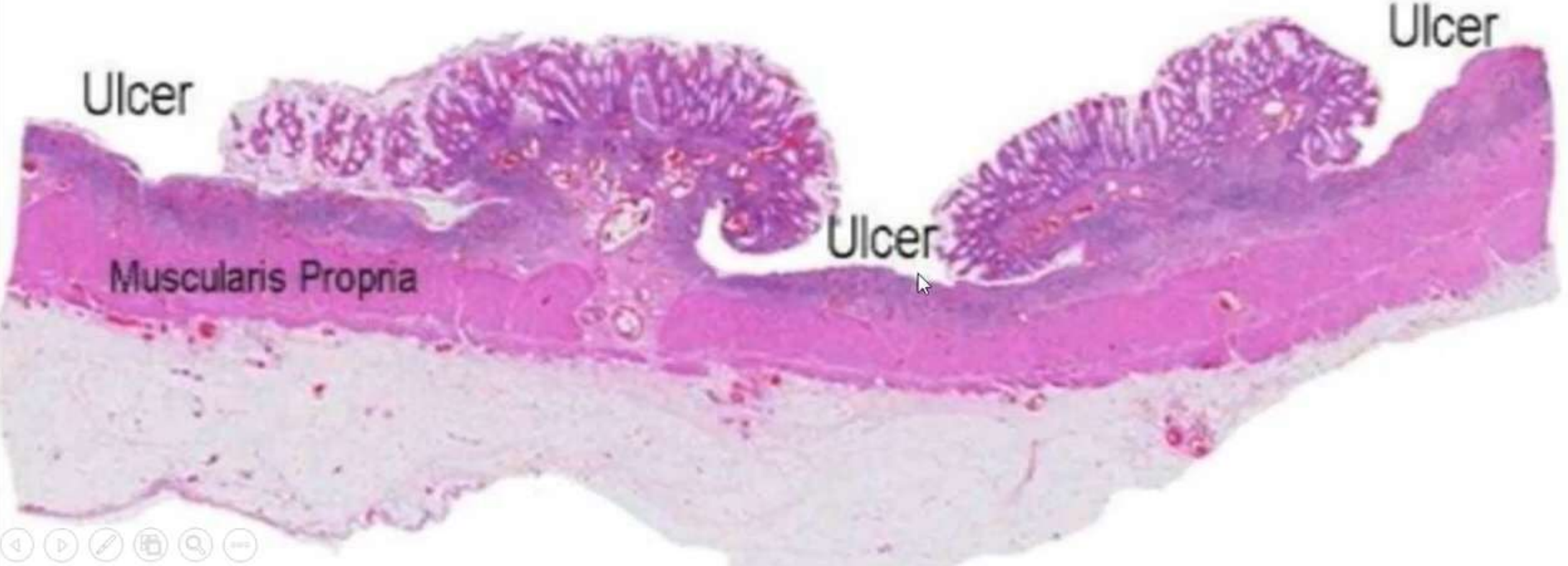
Pseudopolyp

Ulcer

Ulcer

Ulcer

Muscularis Propria



Ulcerative colitis

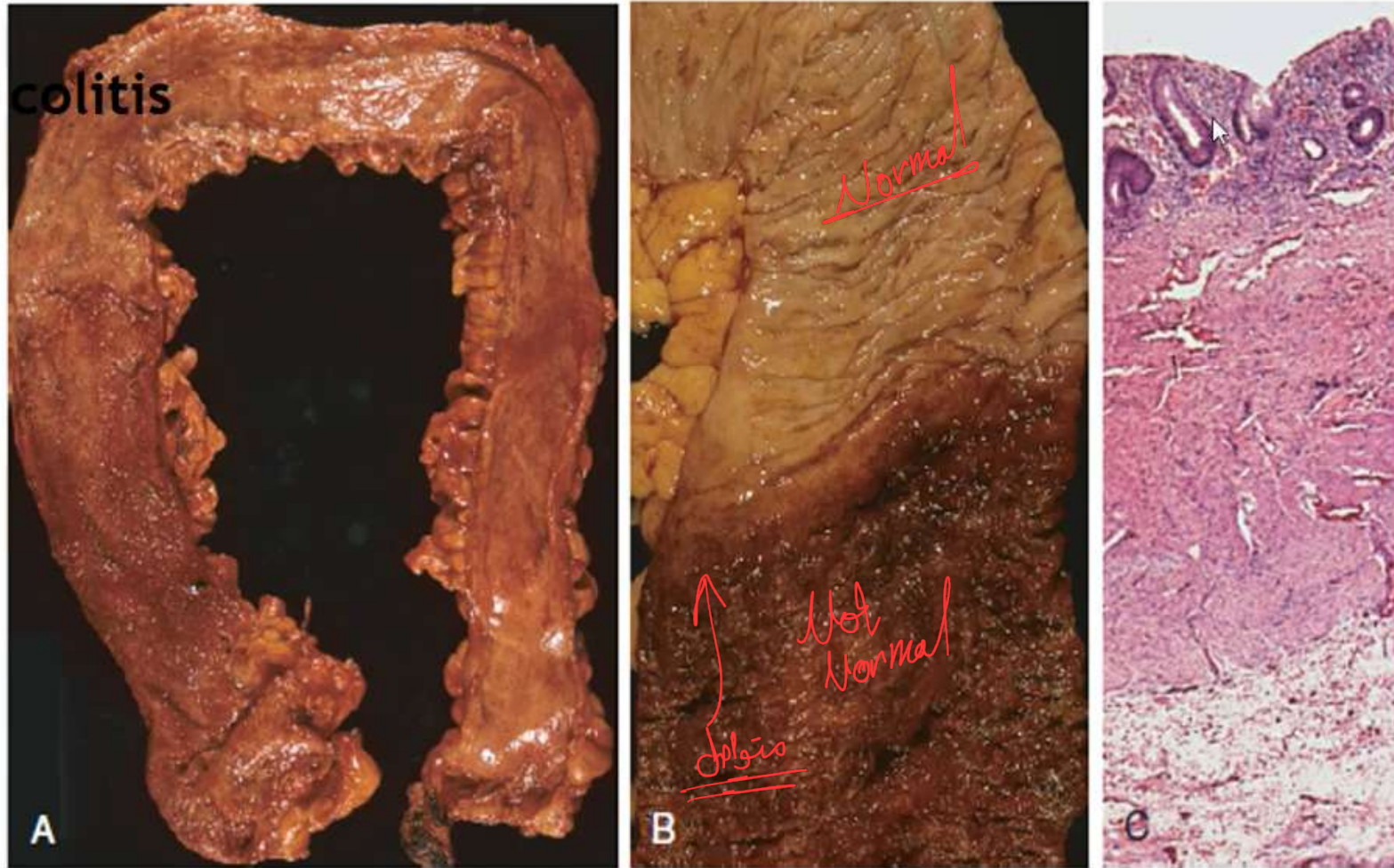


Figure 14-30 Pathology of ulcerative colitis. **A**, Total colectomy with pancolitis showing active disease, with red, granular mucosa in the cecum (left) and smooth, atrophic mucosa distally (right). **B**, Sharp demarcation between active ulcerative colitis (bottom) and normal (top). **C**, This full-thickness histologic section shows that disease is limited to the mucosa. Compare with Figure 14-28, C.

Ulcerative colitis

Crypt Abscesses



Intestinal obstruction

▶ Mechanical obstruction:

- ▶ Intussusception
- ▶ Hernias.
- ▶ Adhesions.
- ▶ Volvulus

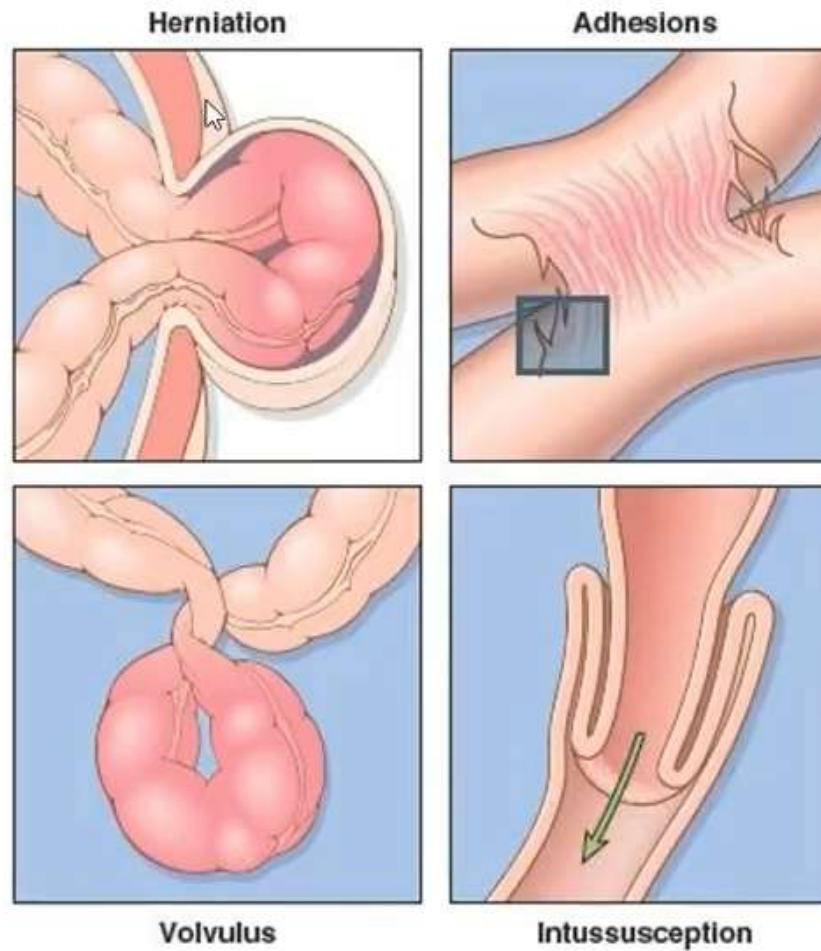
- ▶ Tumors.
- ▶ Diverticulitis
- ▶ Infarction

▶ Non-mechanical obstruction

- ▶ Hirschsprung disease
- ▶ Neurological disorders.
- ▶ Drugs....etc



80% of mechanical obstructions



HIRSCHSPRUNG DISEASE

Most common non-mechanical.

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Ganglion innervating colon

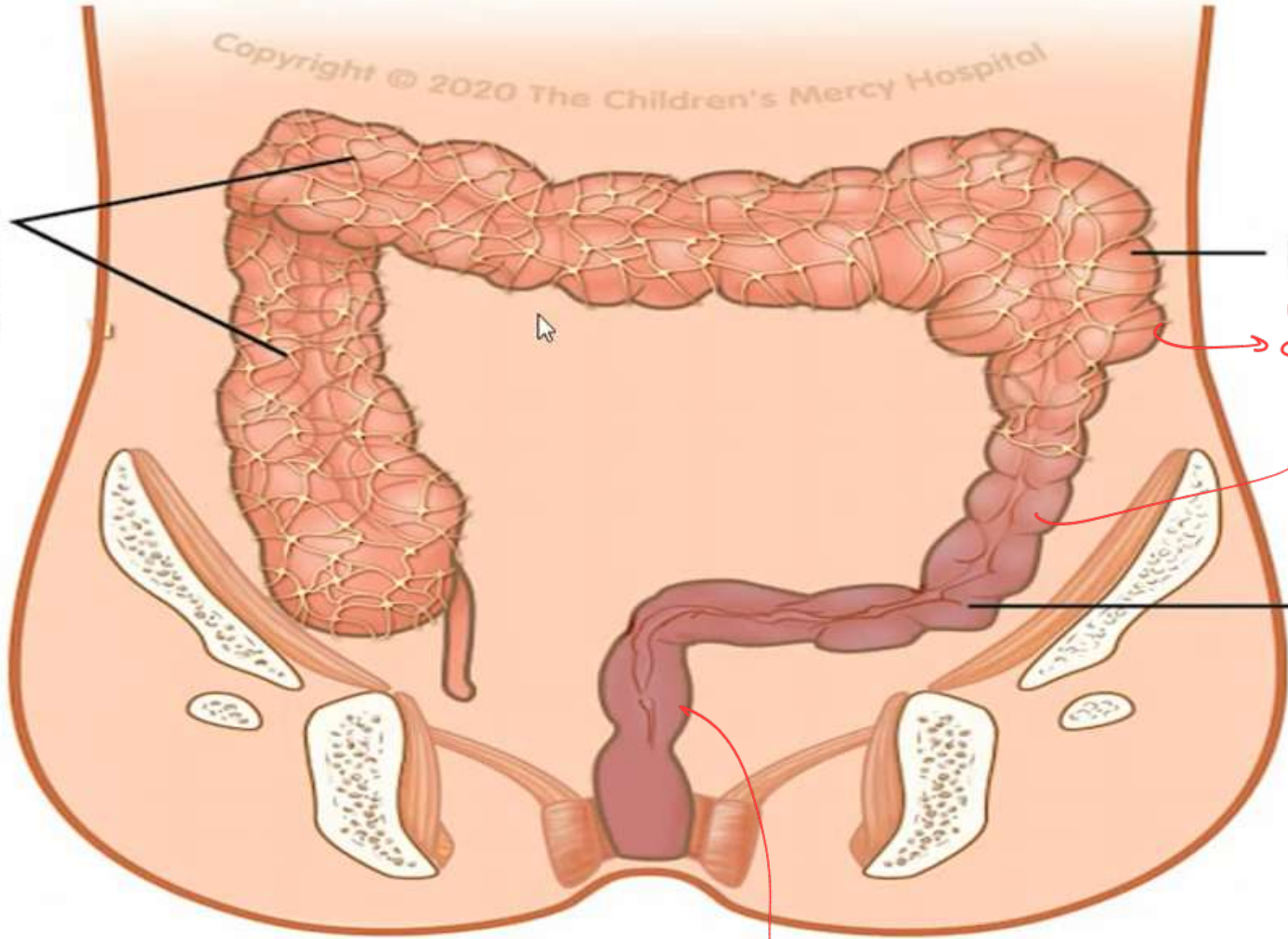
Normal colon

dilated

constricted.

No ganglion
No colon movement

rectum.

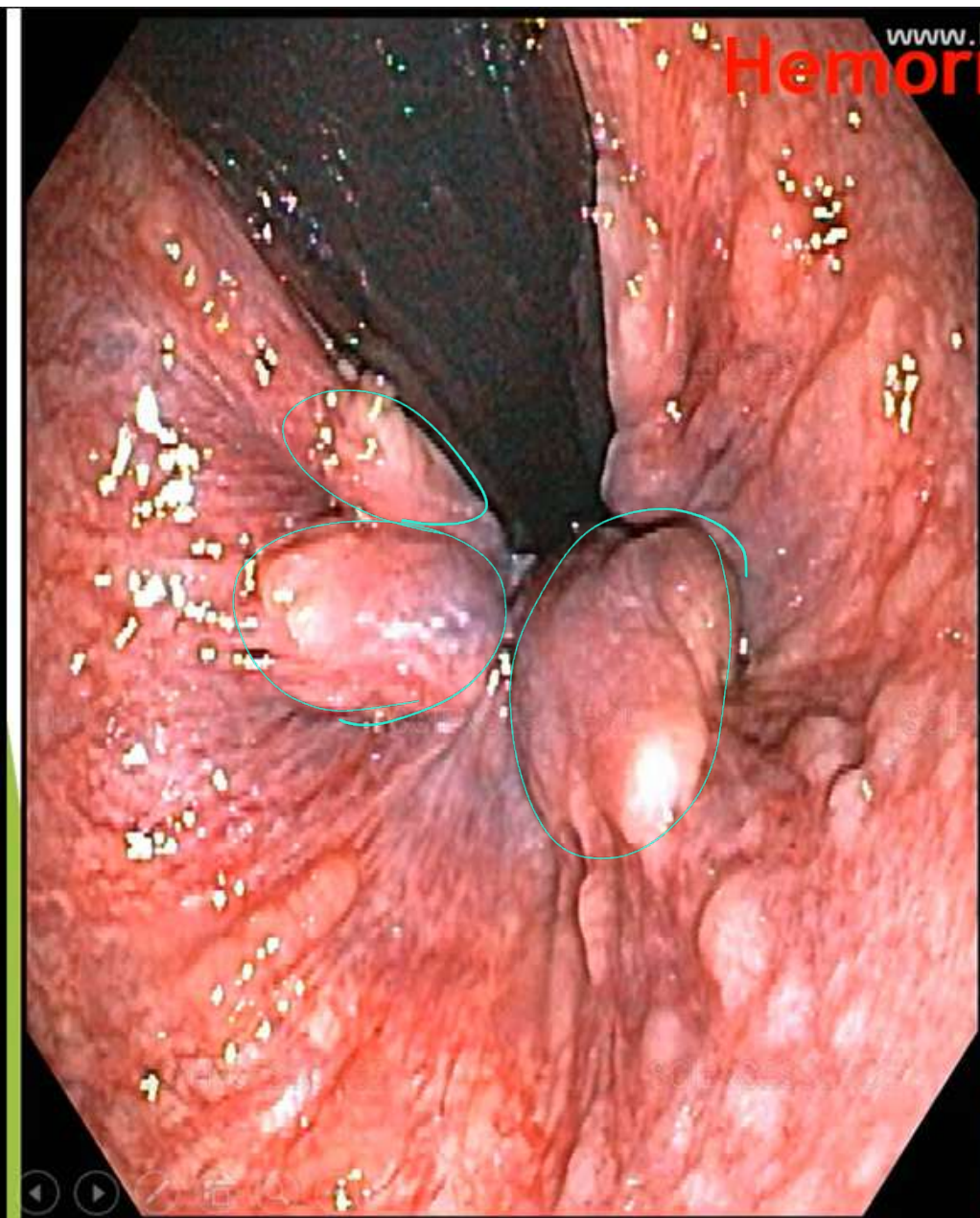


Hirschsprung Disease



Robbins Basic Pathology 10th edition

Homorrhoids \Rightarrow Dilated BV



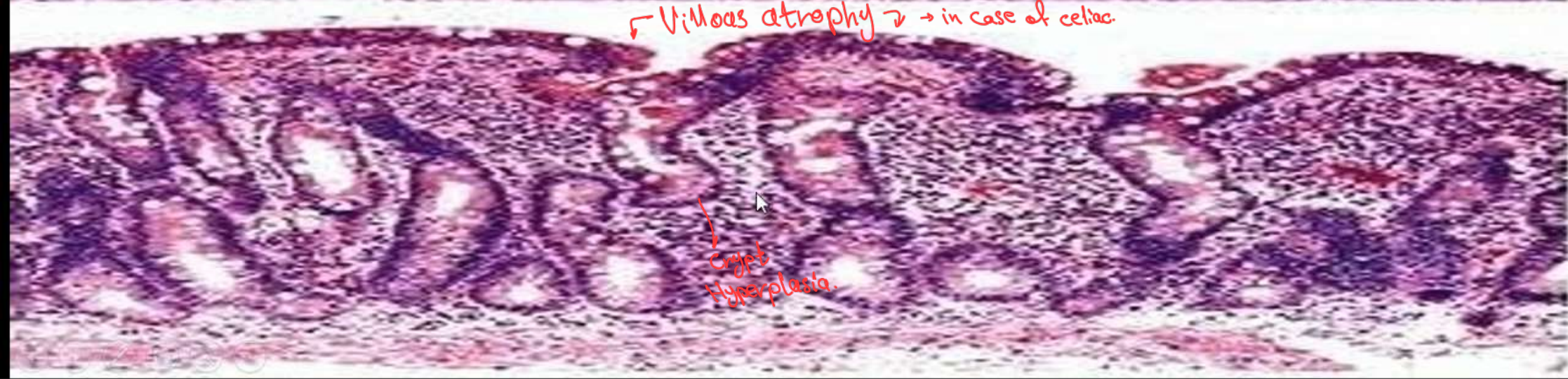
Celiac disease

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(Normal villi)



↳ Villous atrophy → in case of celiac.

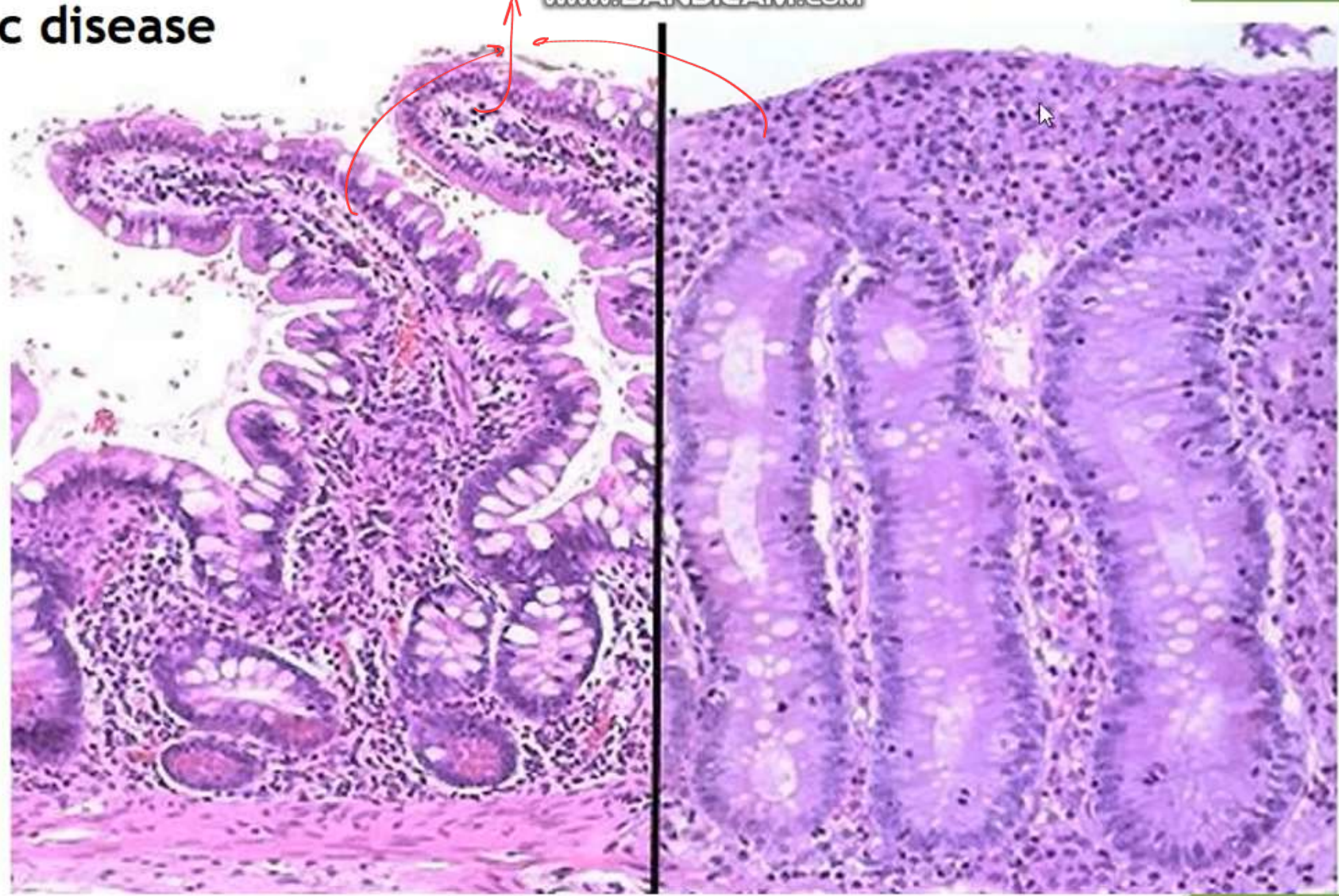


↳ Crypt hyperplasia.

increase in intra epithelial lymphocytes → normally present, but exceeds 30 lymphocytes/100 enterocytes

Celiac disease

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webpathology

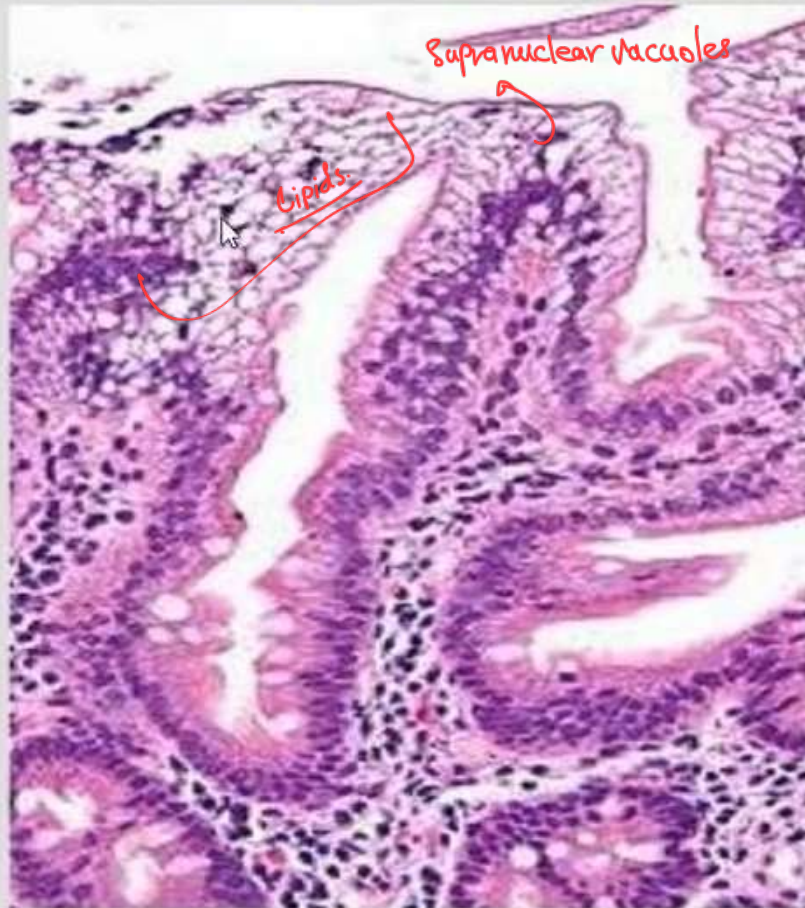


Serology: Celiac diseases

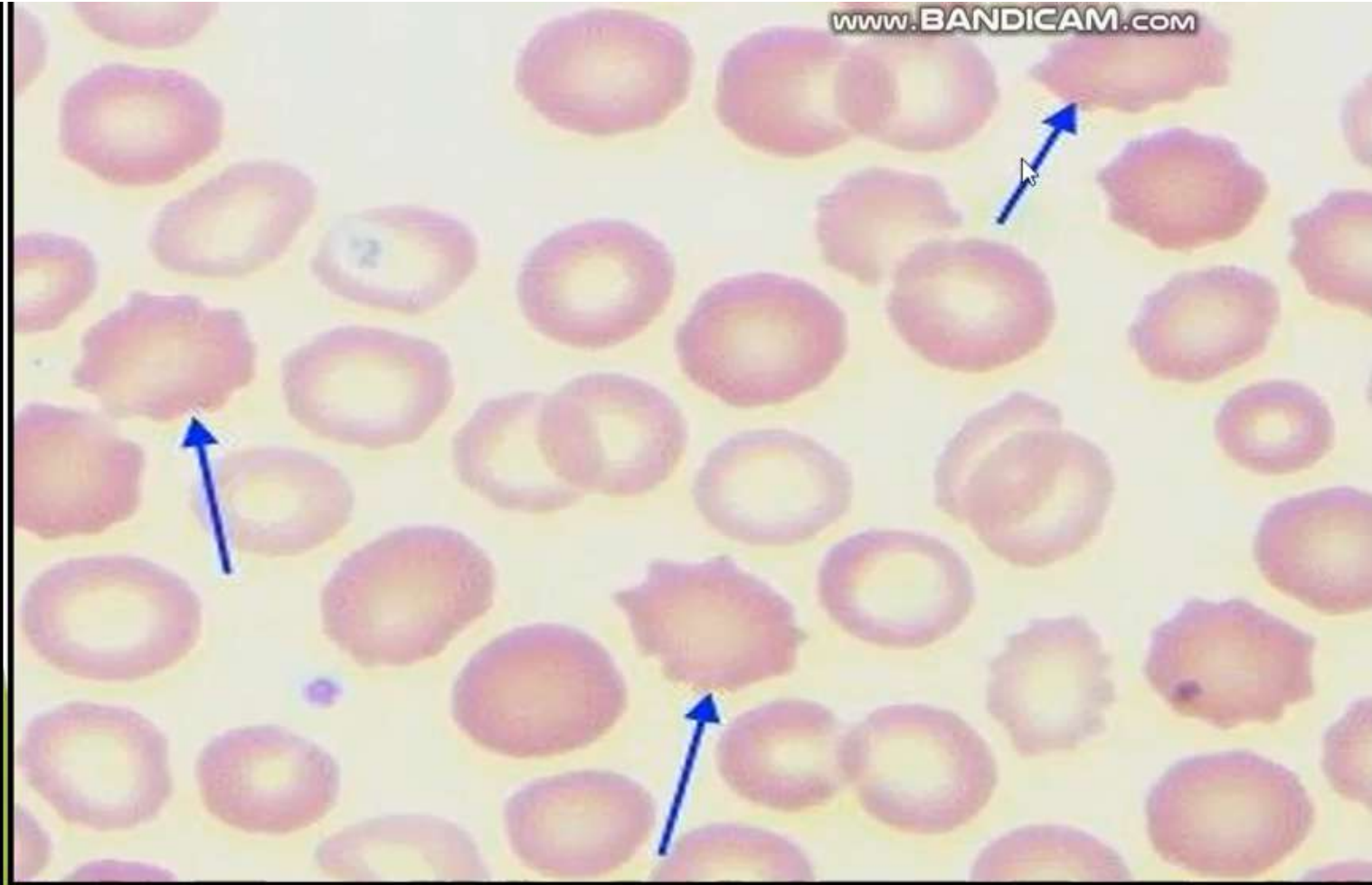
- ▶ Anti- tissue transglutaminase antibodies
- ▶ Anti-gliadin antibodies.
- ▶ Anti -endomysial antibodies



Abetalipoproteinemia



Micrograph showing enterocytes with a clear cytoplasm (due to lipid accumulation) characteristic of abetalipoproteinemia.



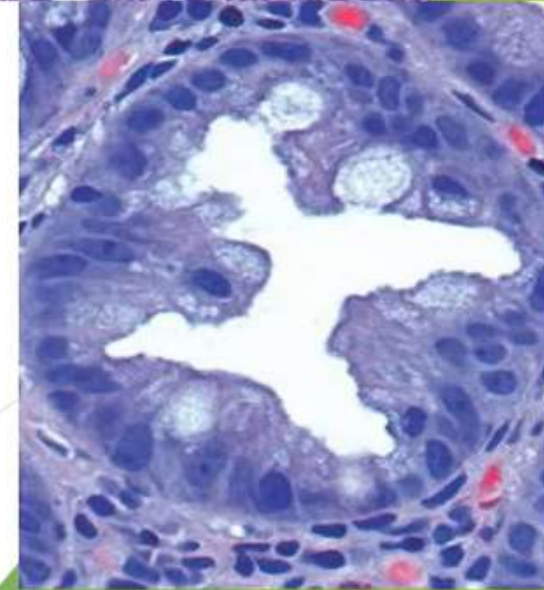
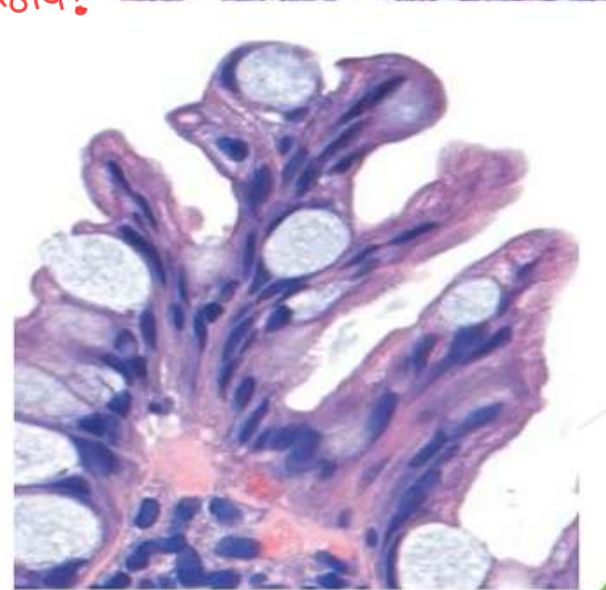
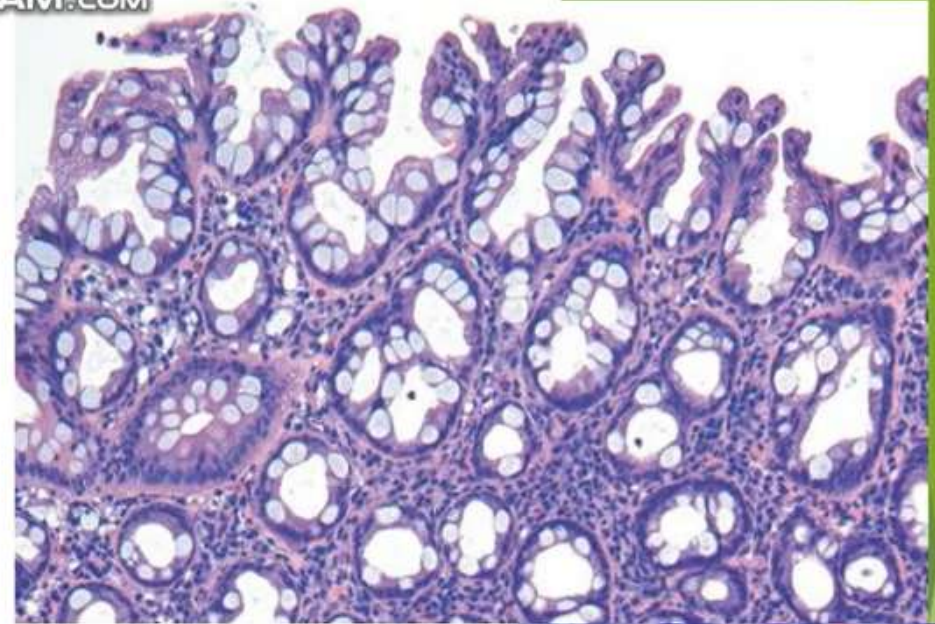
**Acanthocytosis is a hallmark feature of this disease.
(Abetalipoproteinemia)**

Acanthocytes are abnormally spiked RBCs due to the defective phospholipid cell membrane. They are also seen in liver dysfunction

Hyperplastic polyp

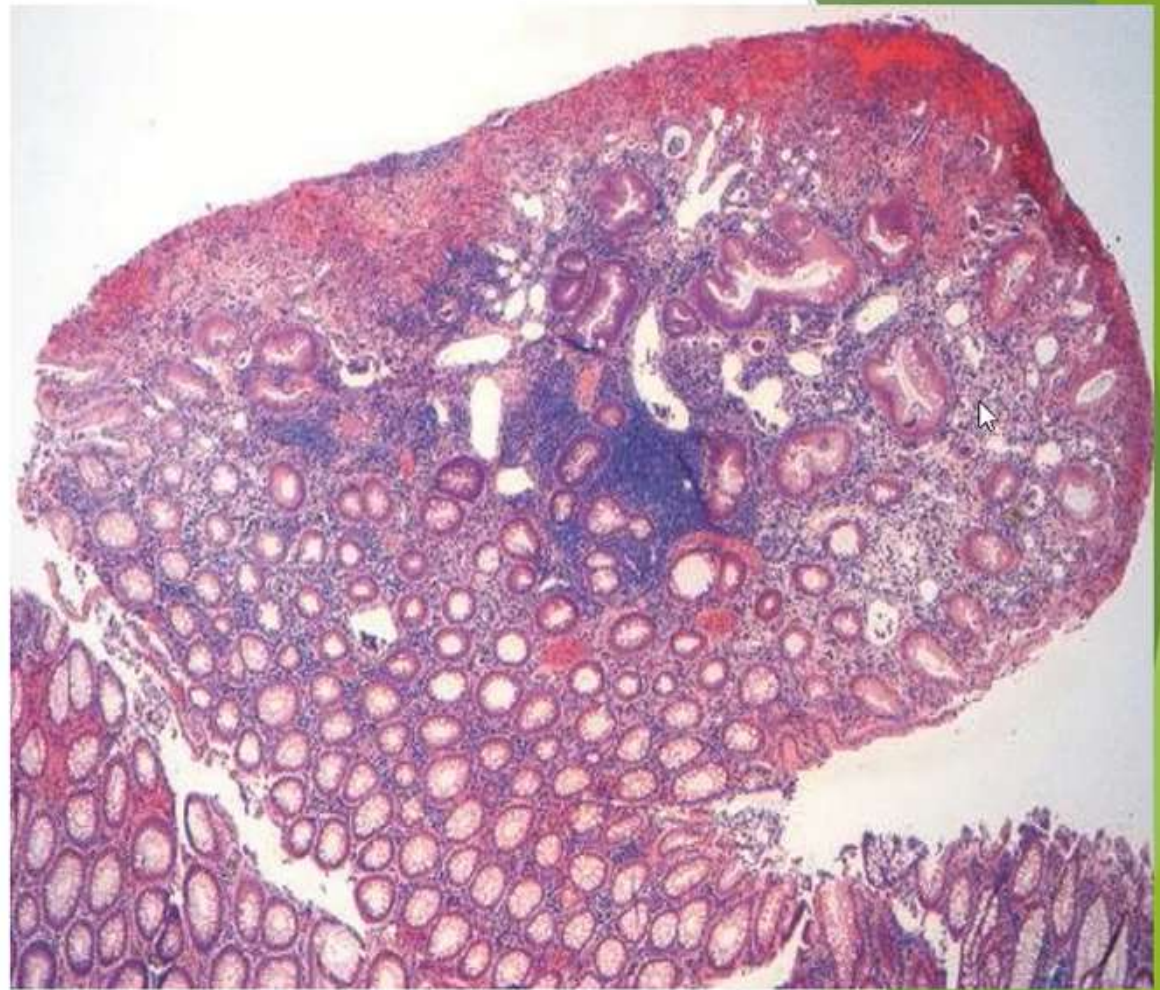
- ▶ Left colon
 - Rectosigmoid.
 - Small < 5 mm
 - Multiple
- Crowding of goblet & absorptive cells.
- Serrated surface: hallmark of these lesions

⊗ NO Dysplasia!



Juvenile Polyps

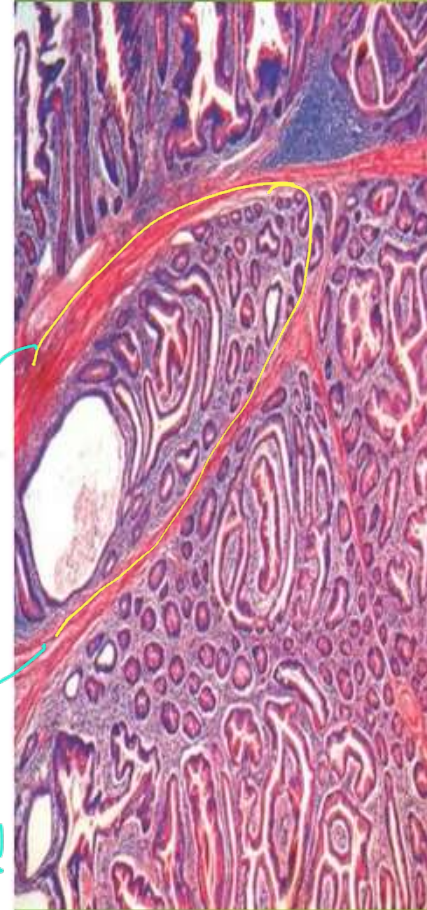
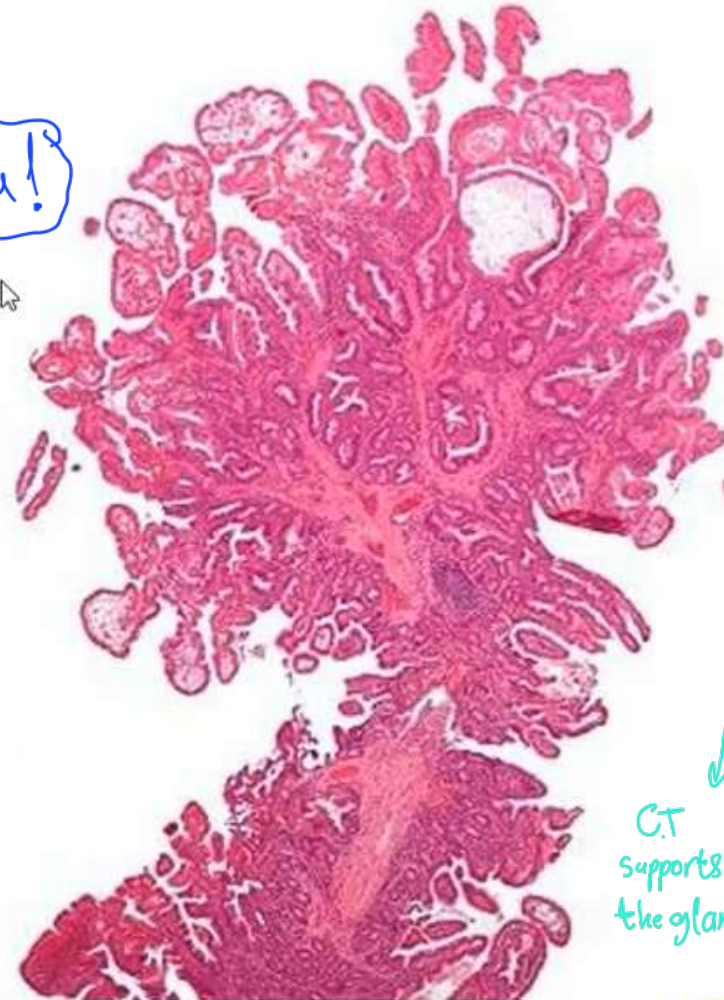
- ▶ **Pedunculated**
- ❑ **Reddish lesions**
- ❑ **Cystic spaces on cut sections**
- ❑ **Dilated glands filled with mucin and inflammatory debris.**
- ❑ **Granulation tissue on surface.**



Peutz-Jeghers polyp

⊛ No Dysplasia!

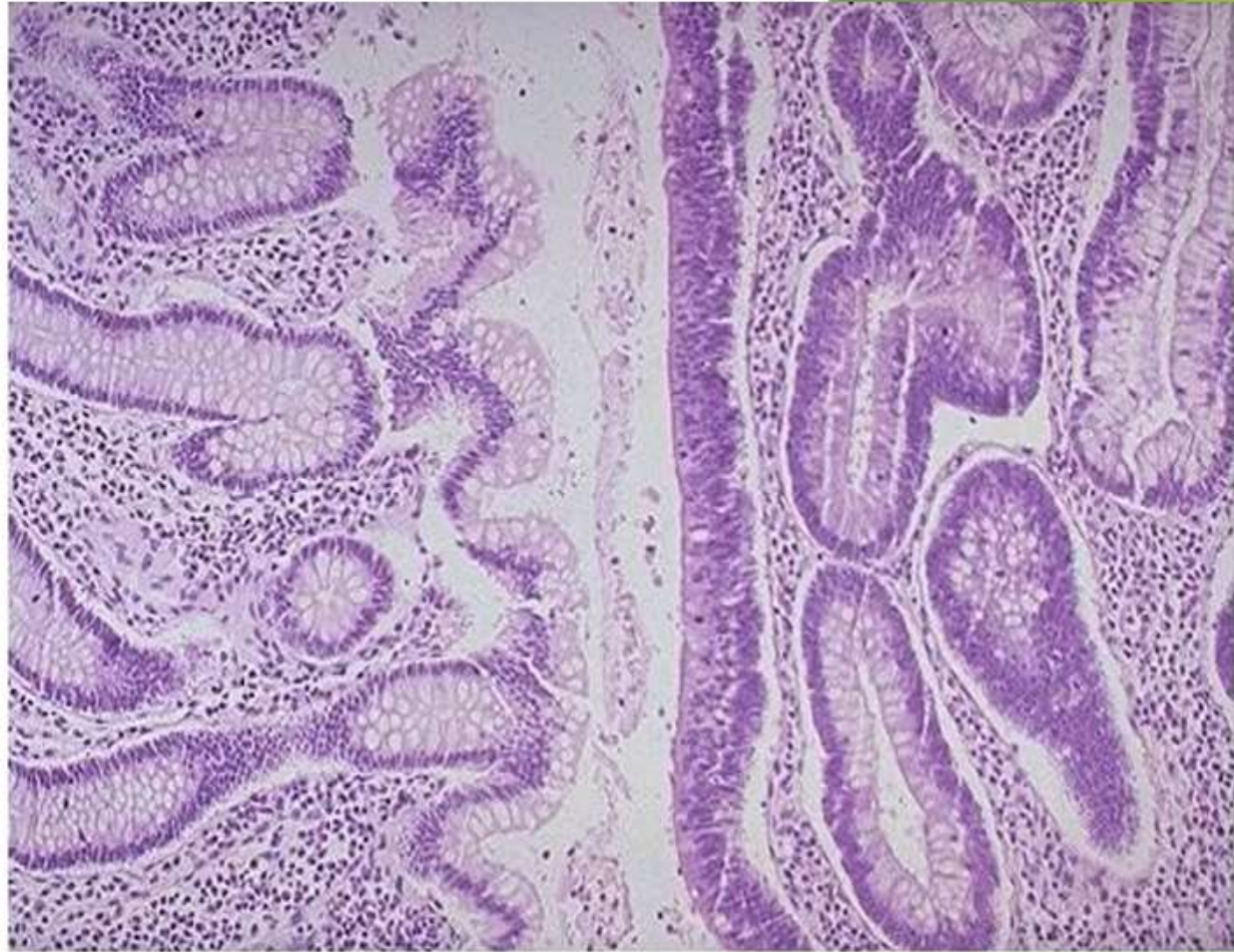
- ▶ Large.
- Arborizing network of connective tissue, smooth muscle, lamina propria
- Glands lined by normal-appearing intestinal epithelium
- Christmas tree pattern.



CT supports the gland!

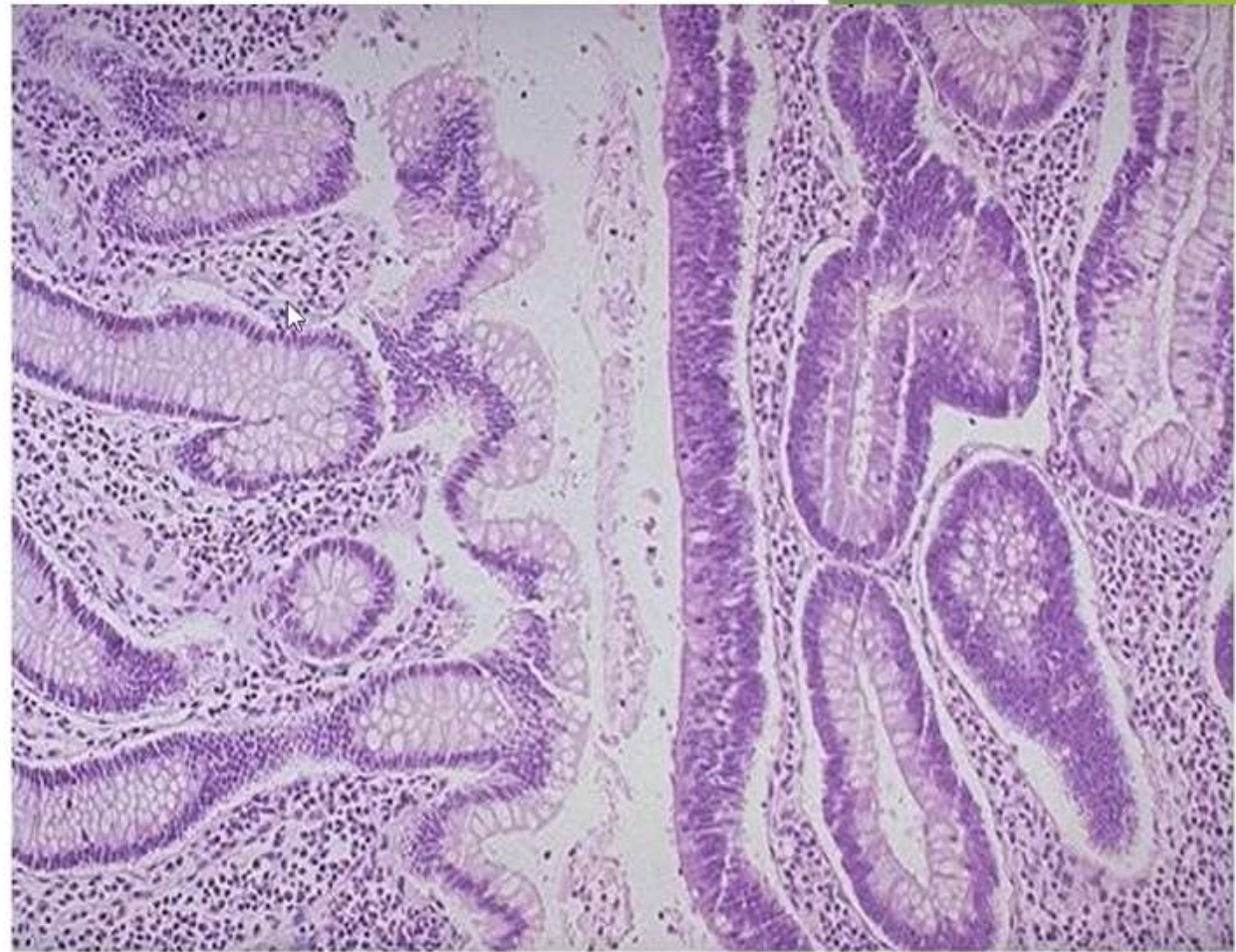
Colon adenoma

- ▶ **Hallmark: epithelial dysplasia**
- **Dysplasia: nuclear hyperchromasia, elongation, stratification, high N/C ratio.**
- **Size : most important correlate with risk for malignancy**
- **High-grade dysplasia is the second factor**



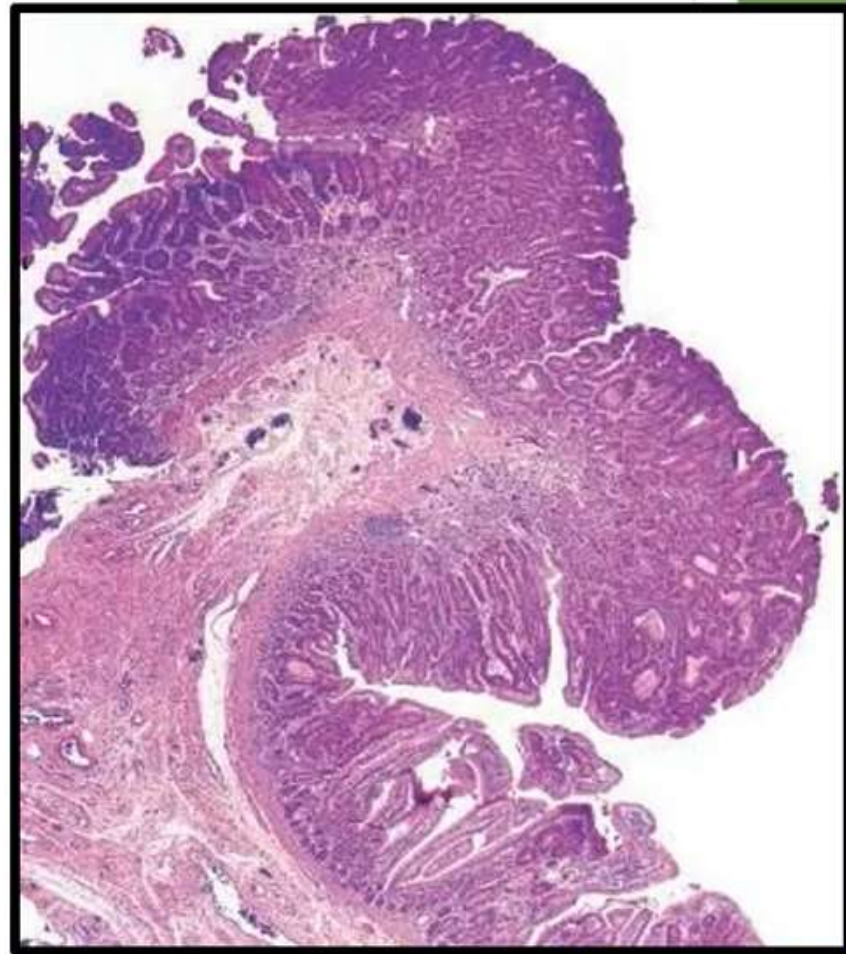
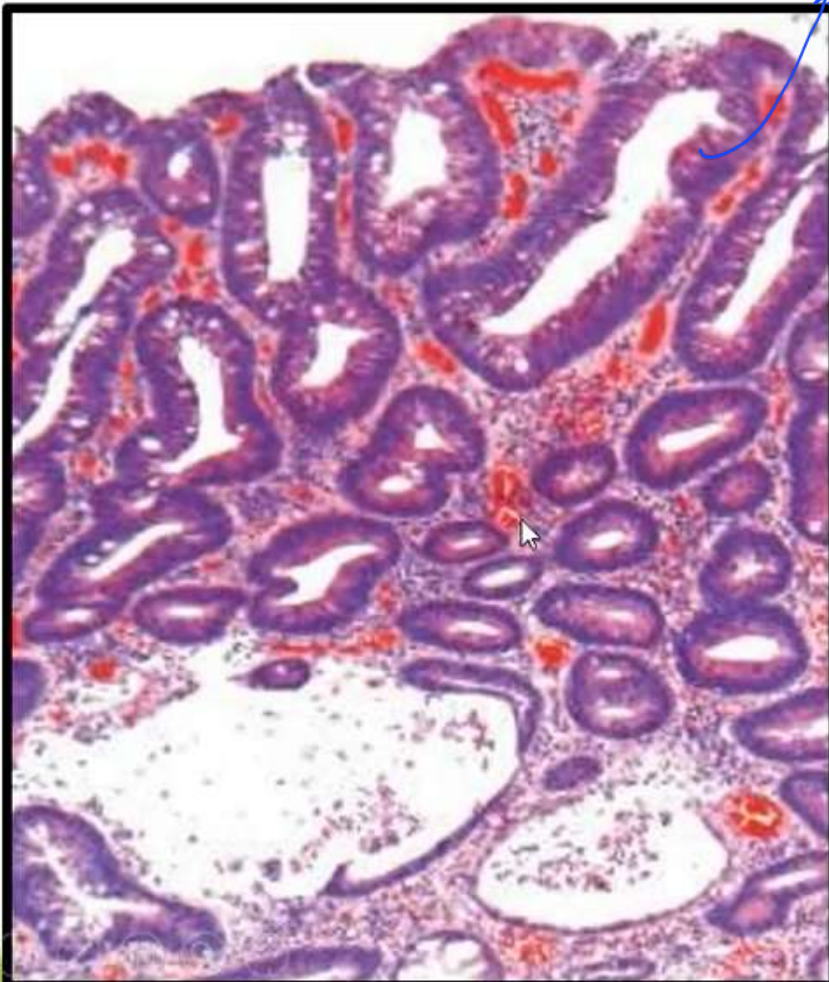
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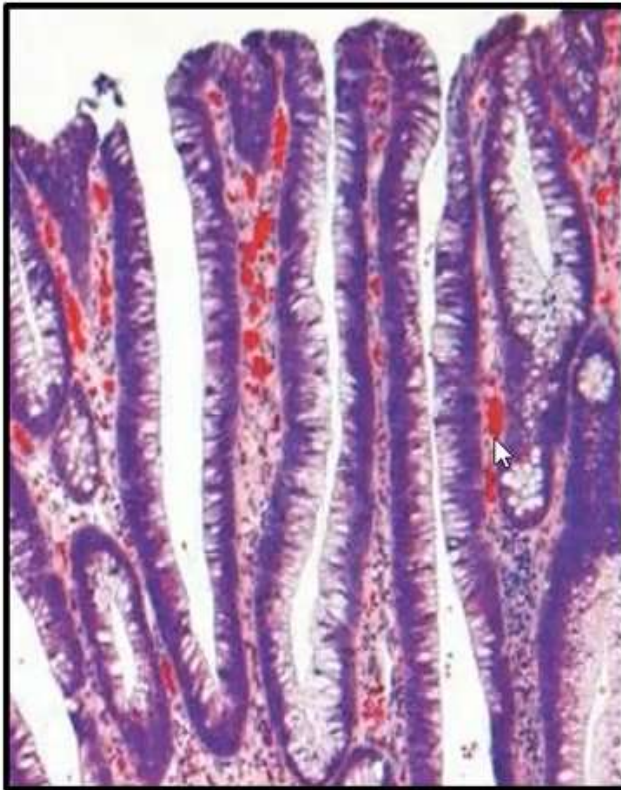


Tubular adenoma

Dysplastische Epithelium.



Villous adenoma. \Rightarrow Risk of invasion is High!



- ▶ Long slender villi.
- More frequent invasive foci

- ▶ Architecture:
- ▶ Tubular.
- ▶ Tubulovillous.
- Villous.

more than 100 polyp! 100% risk of Malignancy.

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FAP

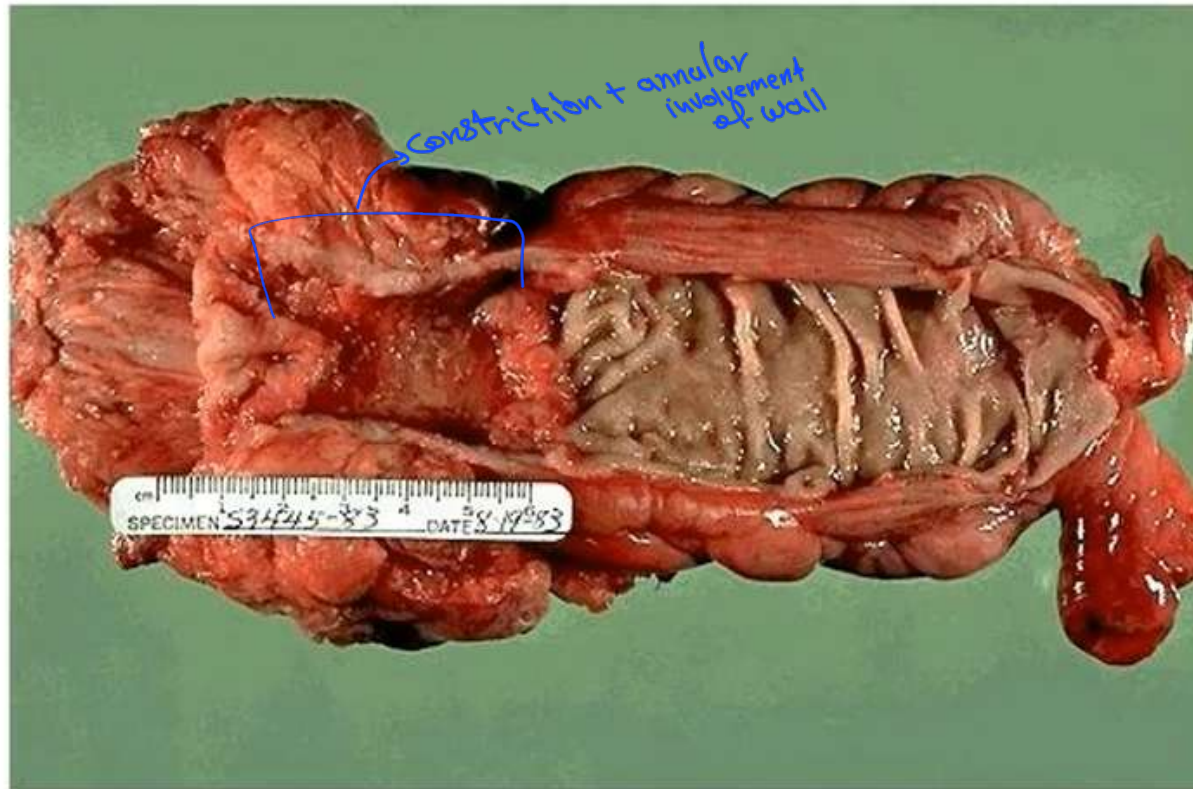


Colonic Adenocarcinoma

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Left colon

Rectosigmoid adenocarcinoma, napkin ring



Right colon

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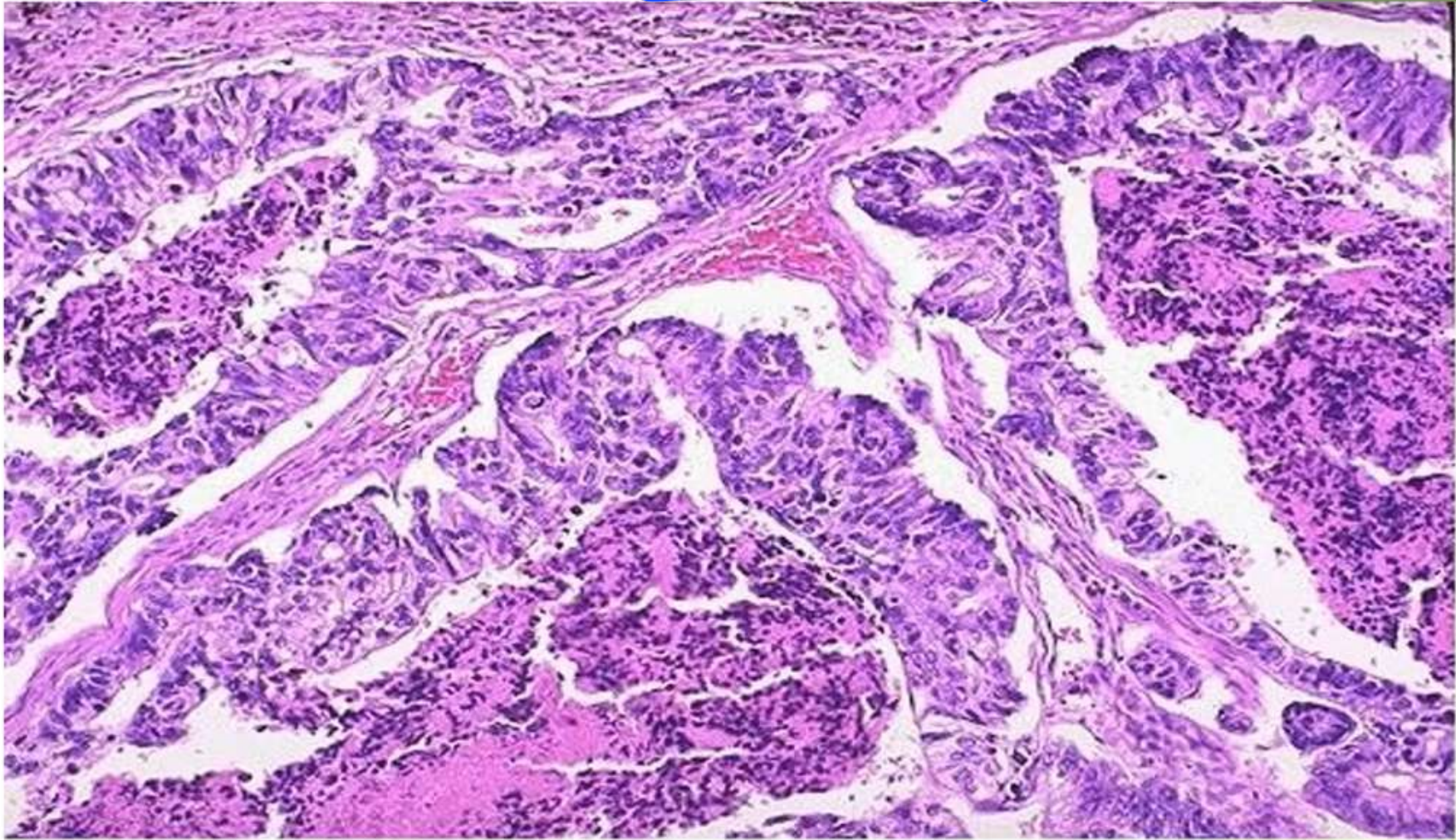
Exophytic adenocarcinoma



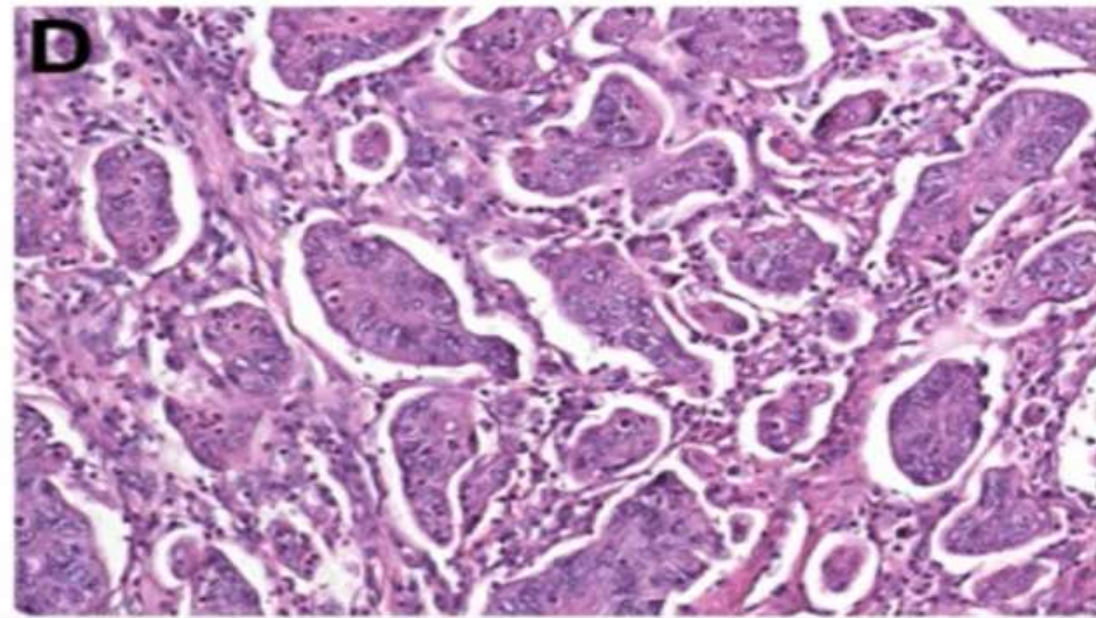
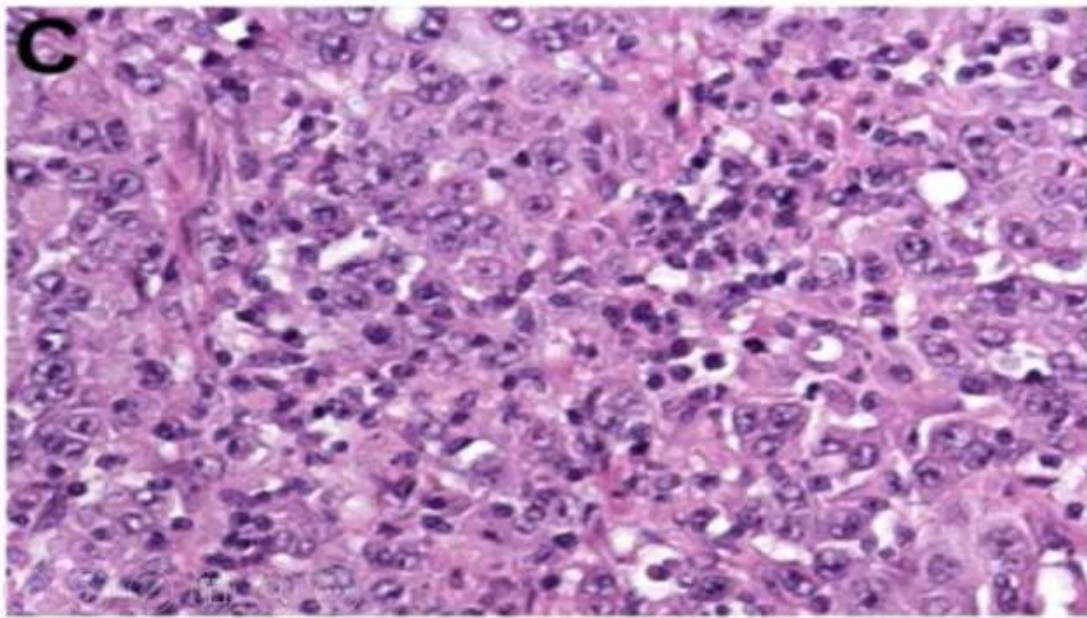
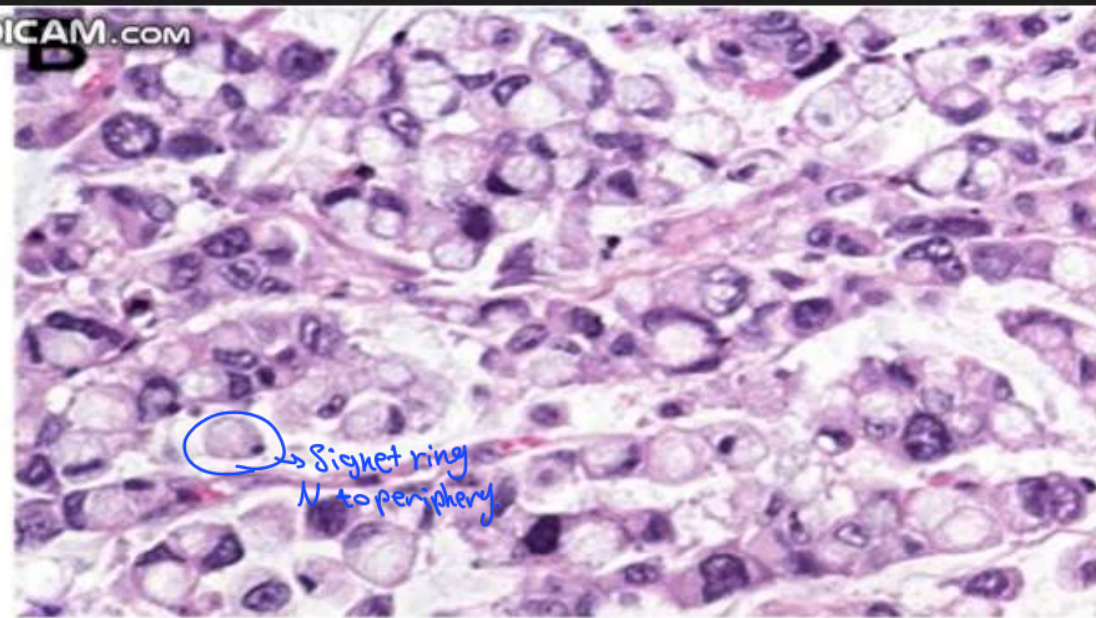
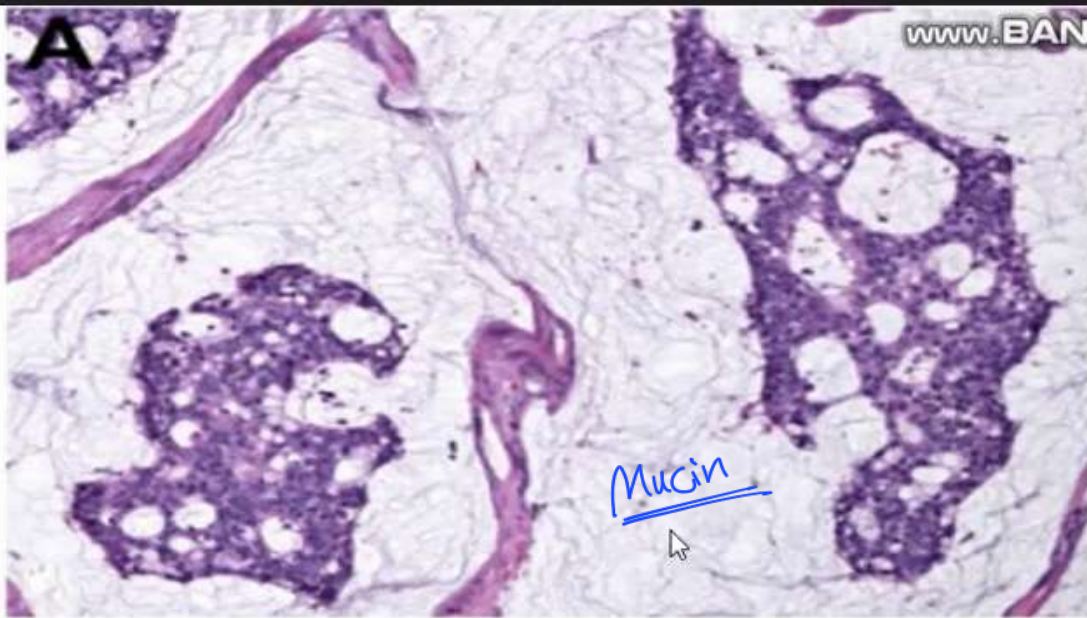
Colon

Adenocarcinoma with necrosis

inside the tumor.



Poorly differentiated colonic Adenocarcinoma.



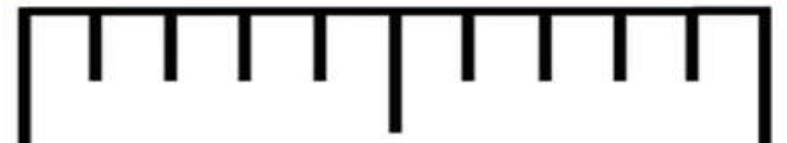


Fecalith

⚪ يابون عيسى
Numerous
Neutrophils in the wall.



HÔPITAL
SAINTE-JUSTINE

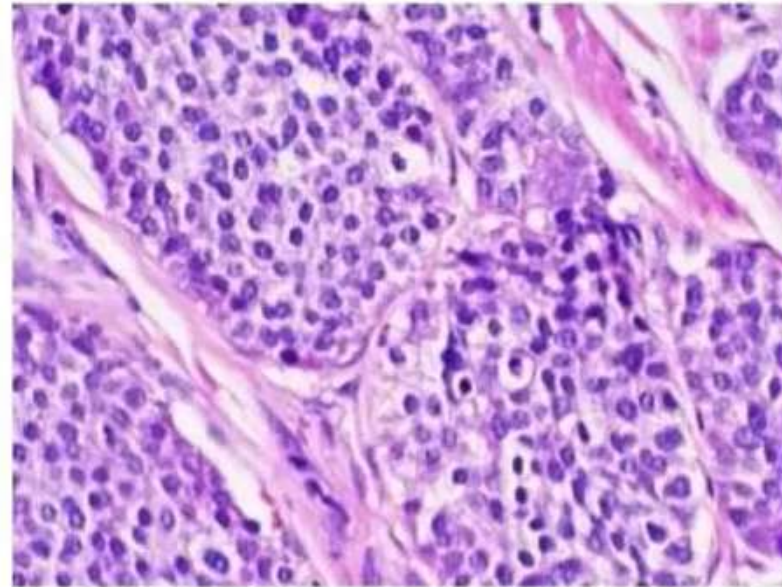


1 cm

Carcinoid tumor



Gross



Microscopic