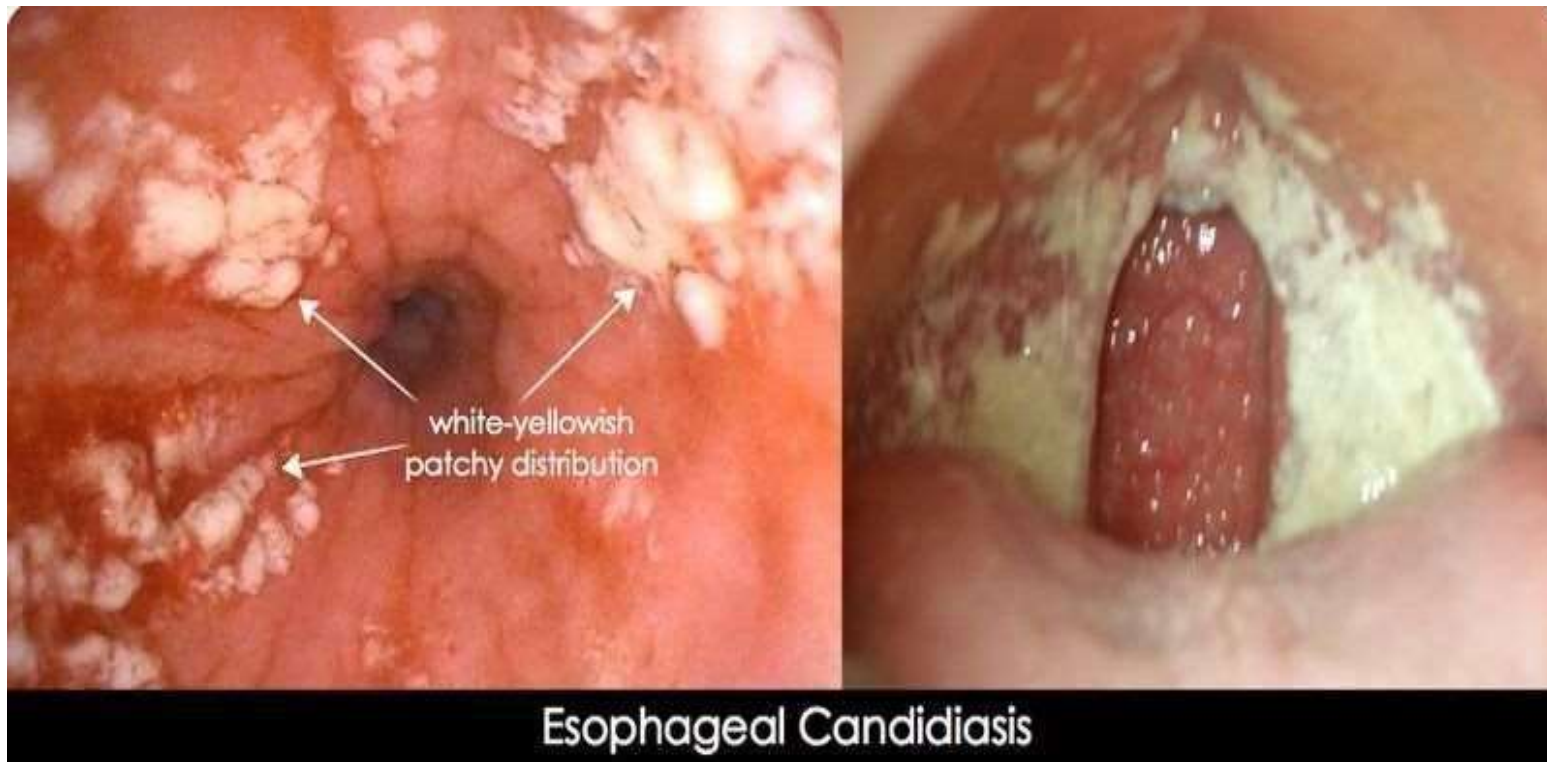


- Candidiasis :
- Adherent.
- Gray-white pseudomembranes
- Composed of matted fungal hyphae and inflammatory cells

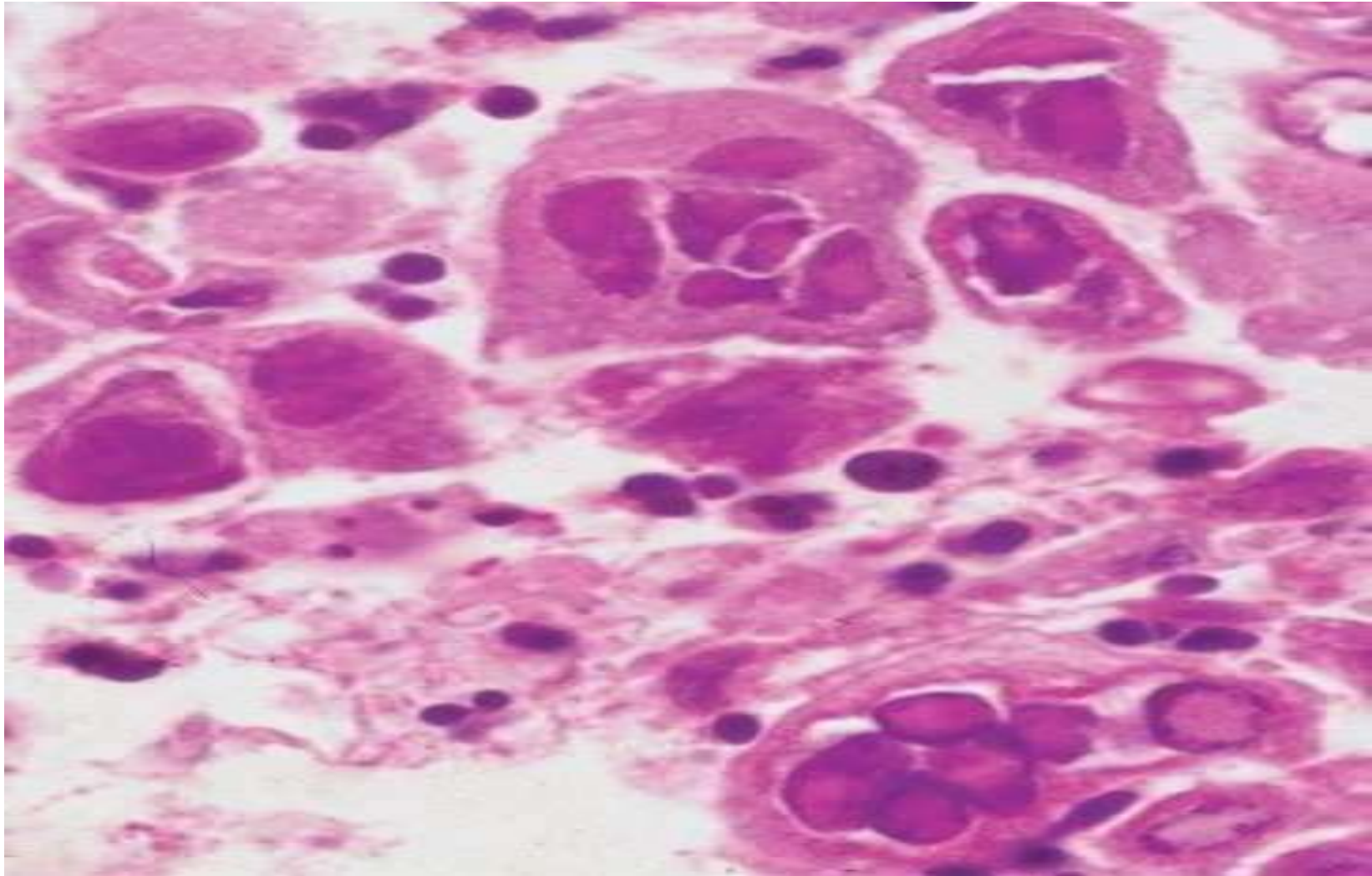


B

Cn

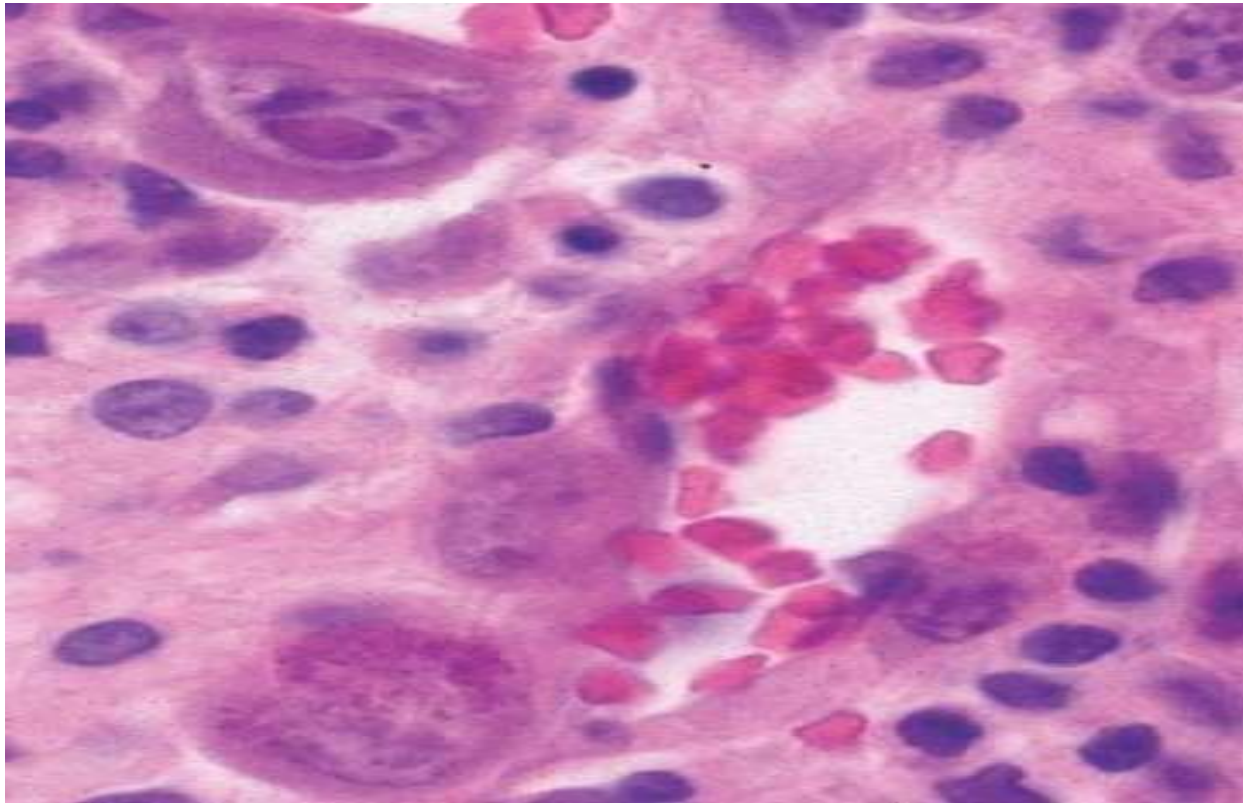
Es

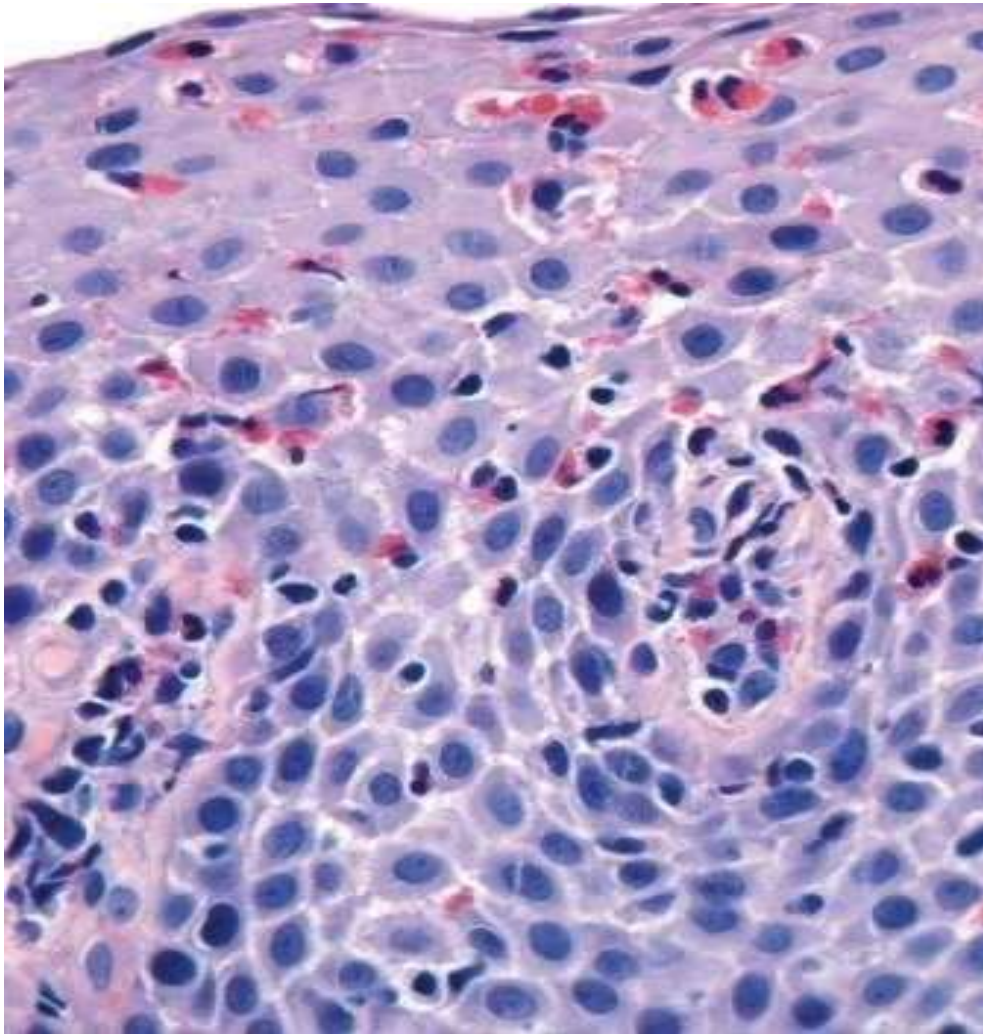


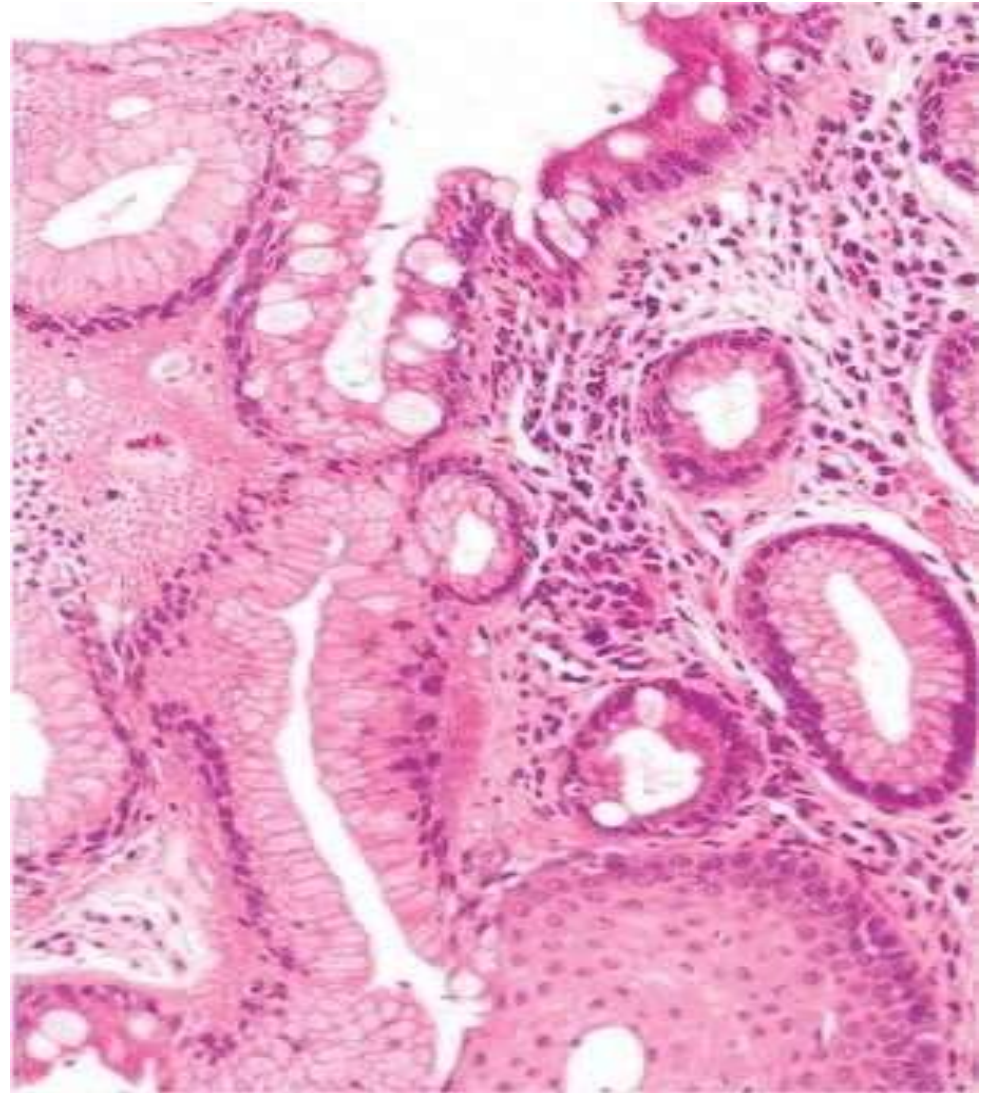


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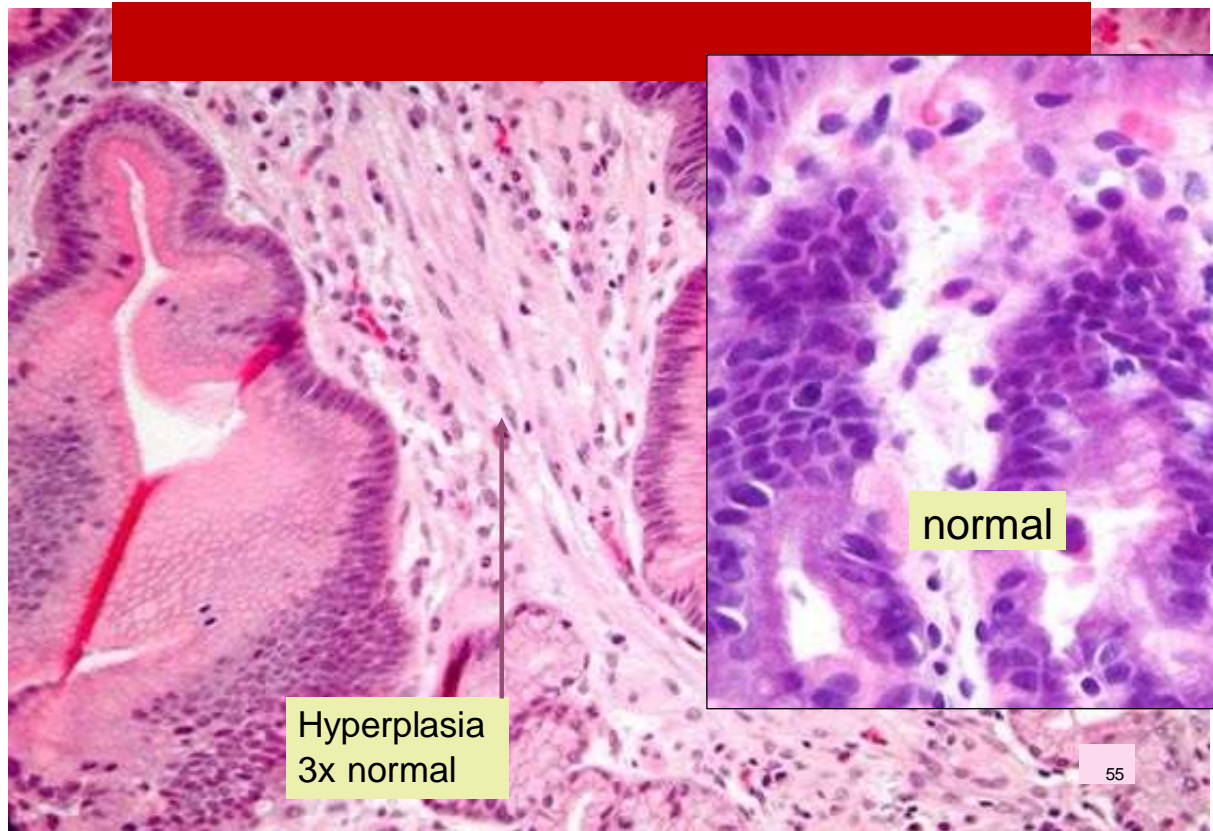
- CMV :
- Shallower ulcerations.
- Biopsy: nuclear and cytoplasmic inclusions in capillary endothelium and stromal cells



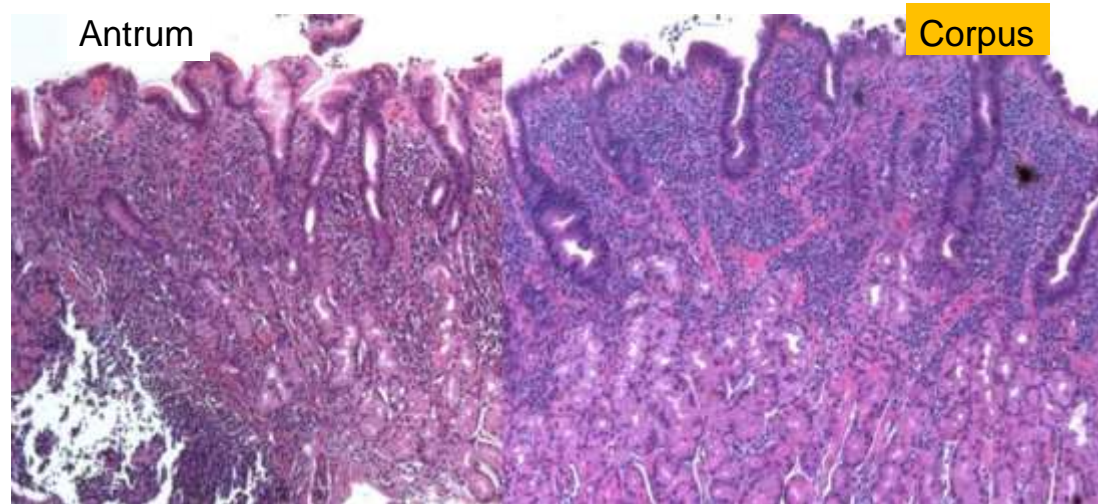




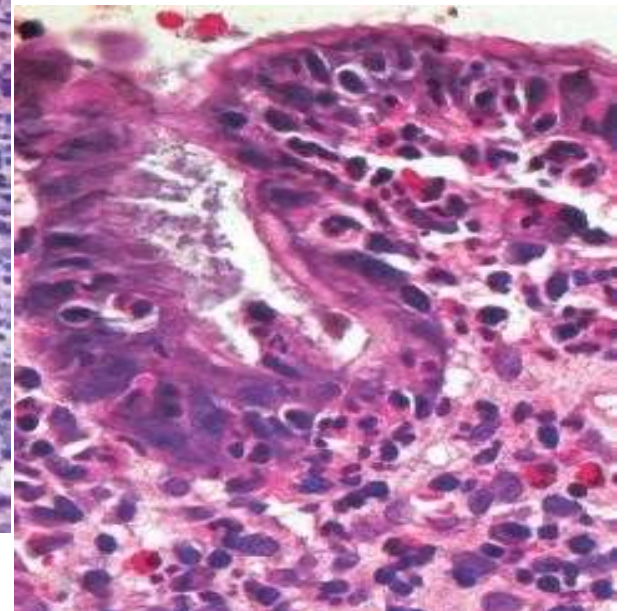
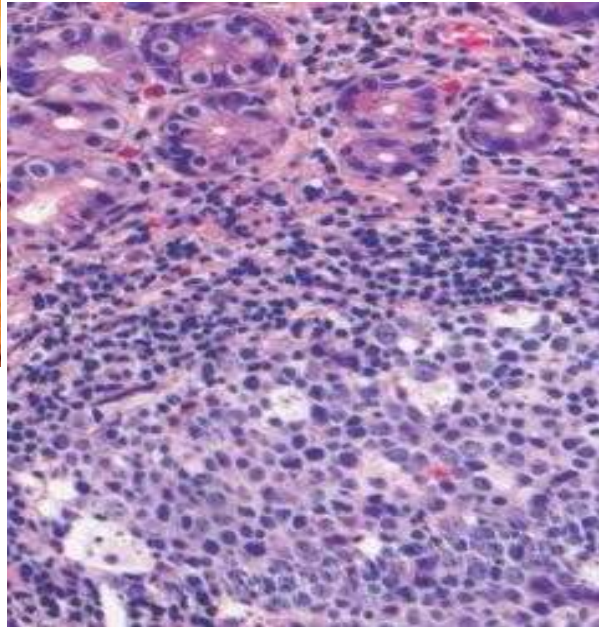
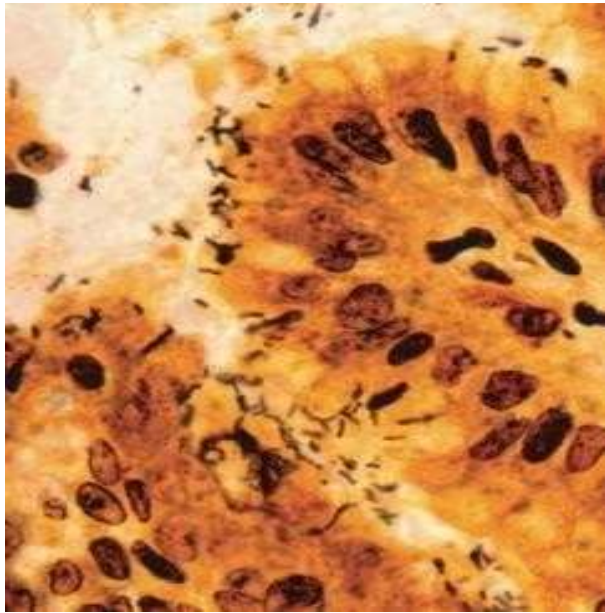
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And *later* H. Pylori Gastritis

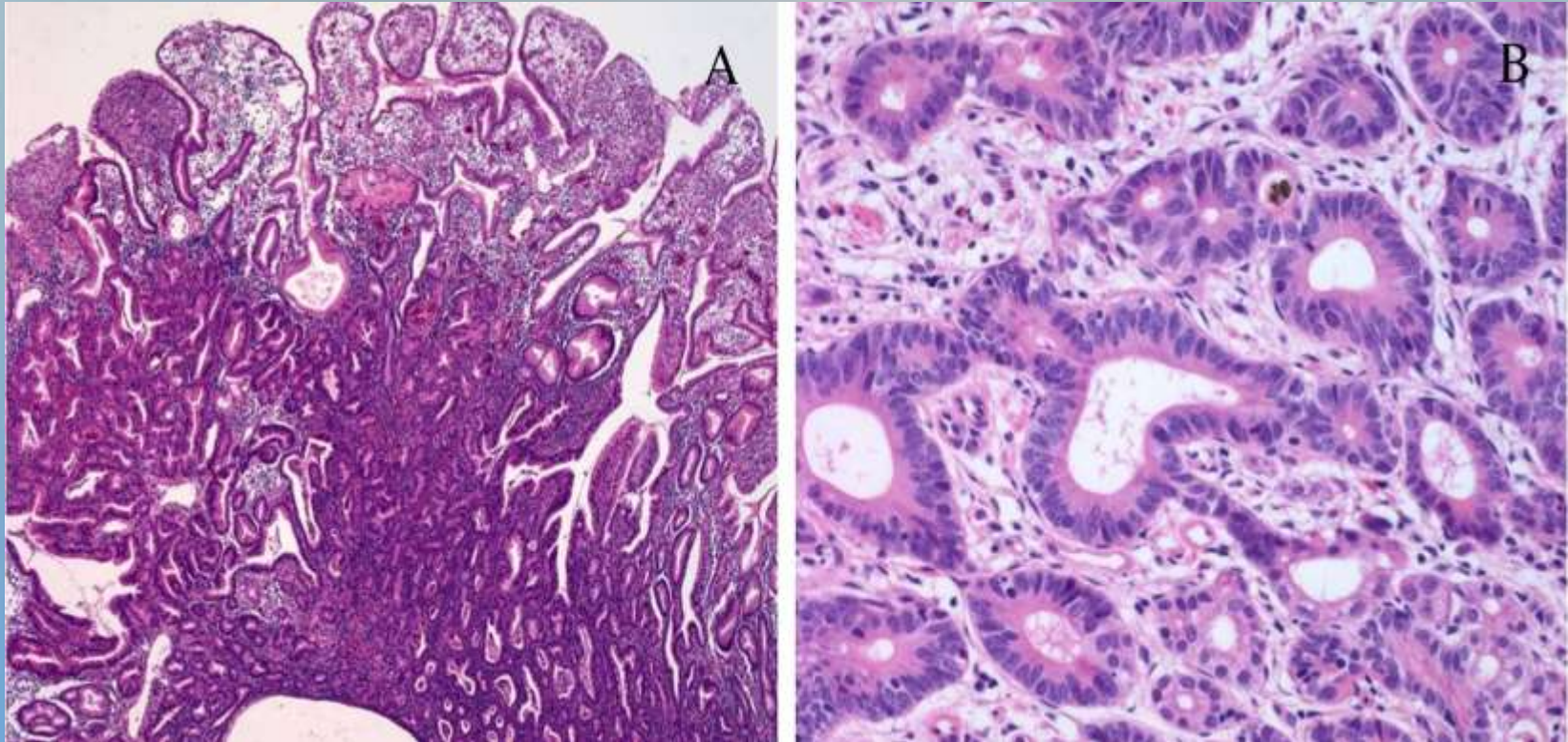


Pan-Gastritis with deeper inflammation in ! corpus

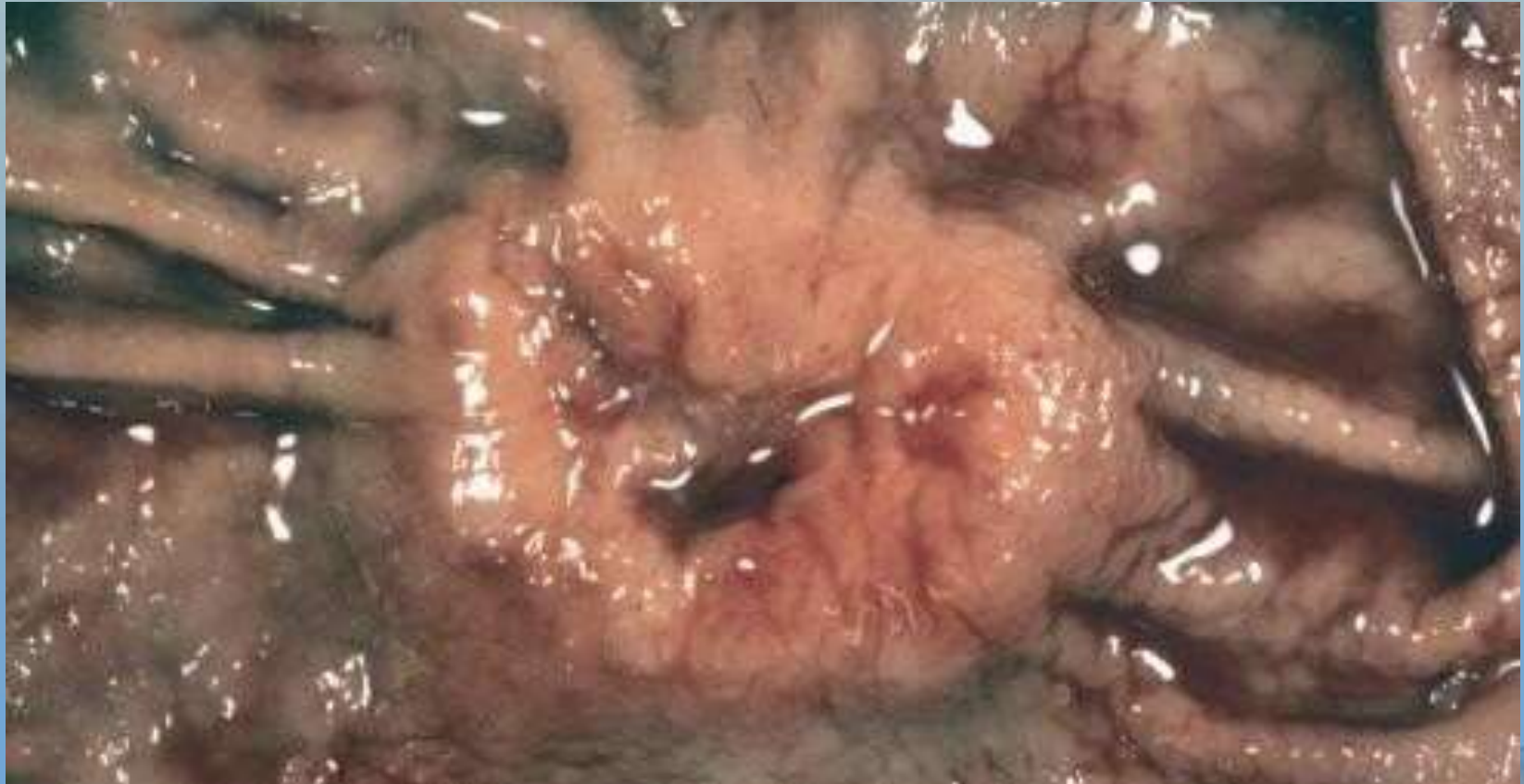


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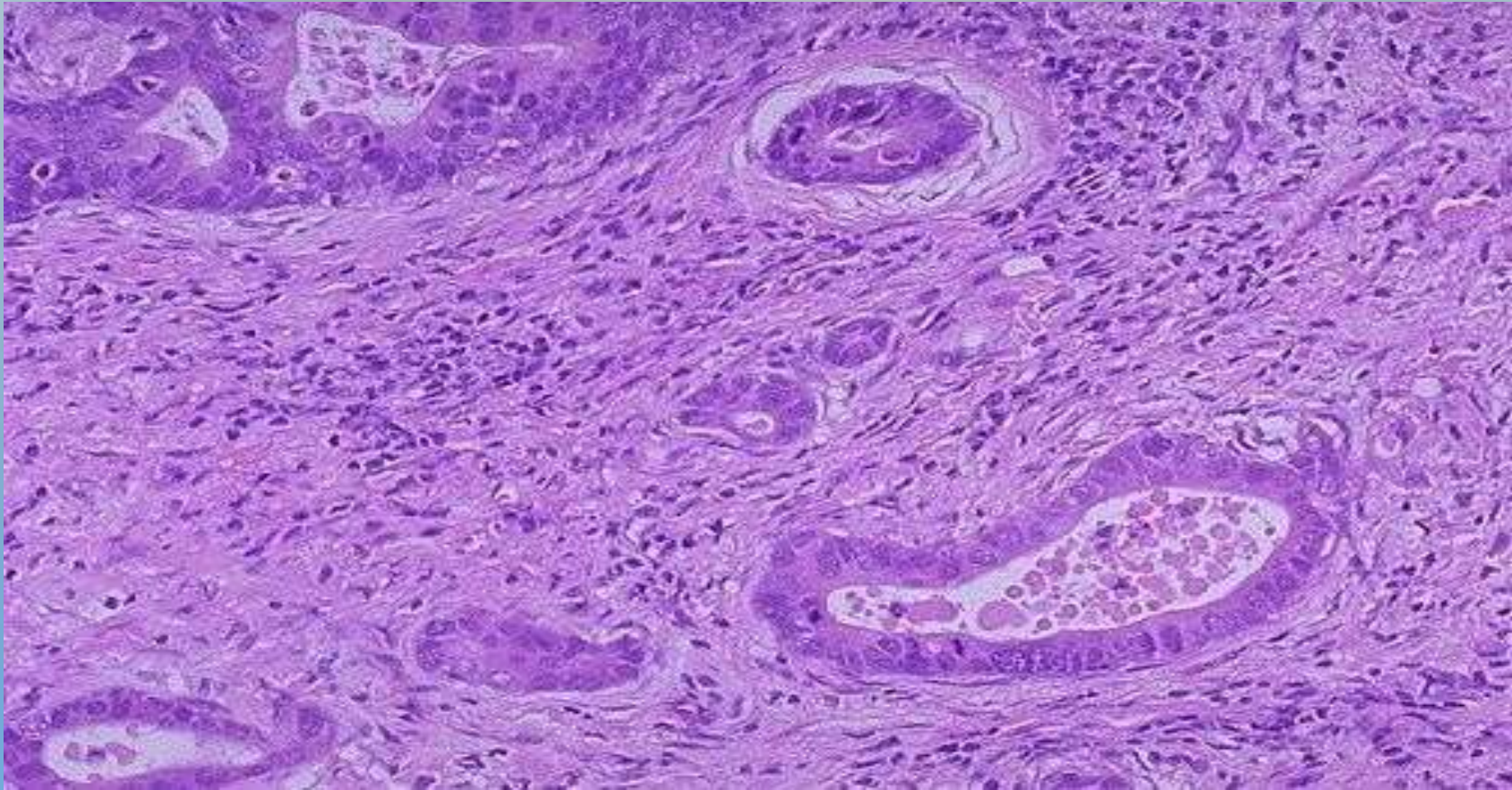
GASTRIC ADENOMA



INTESTINAL TYPE



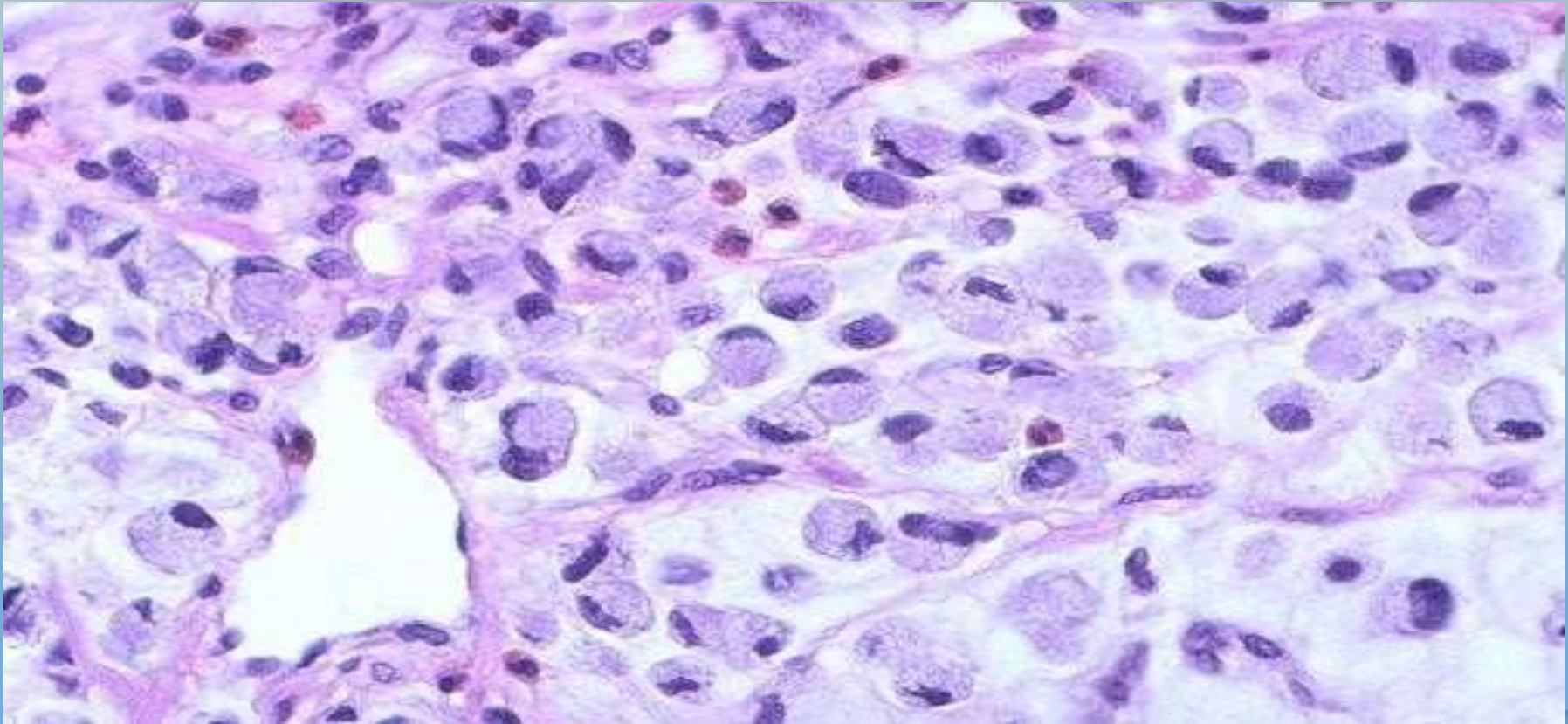
INTESTINAL TYPE



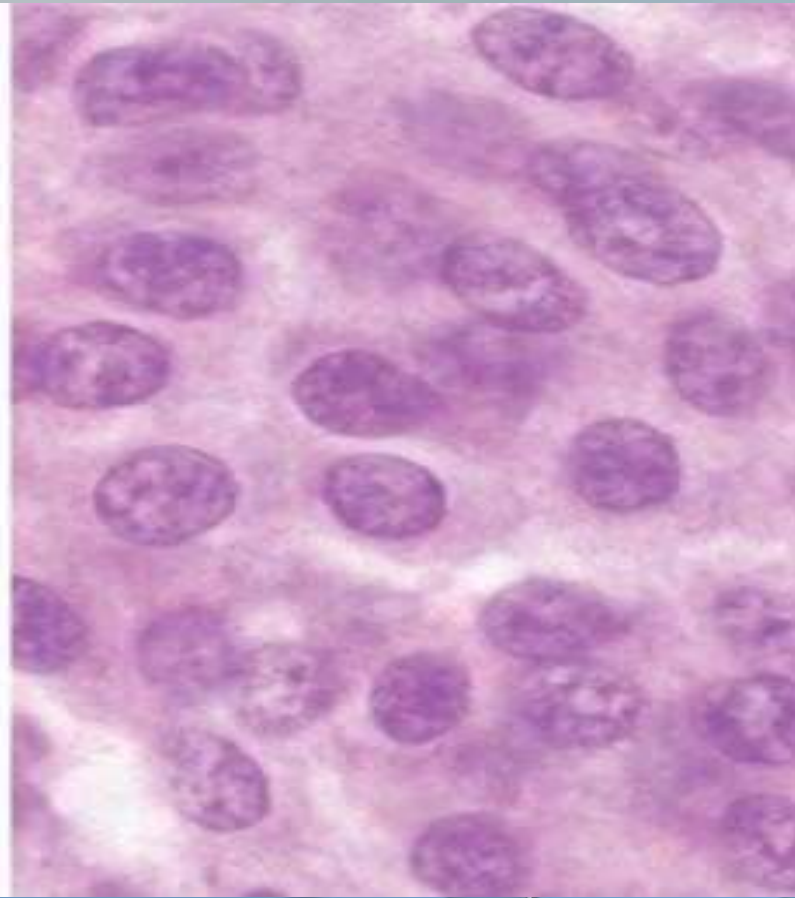
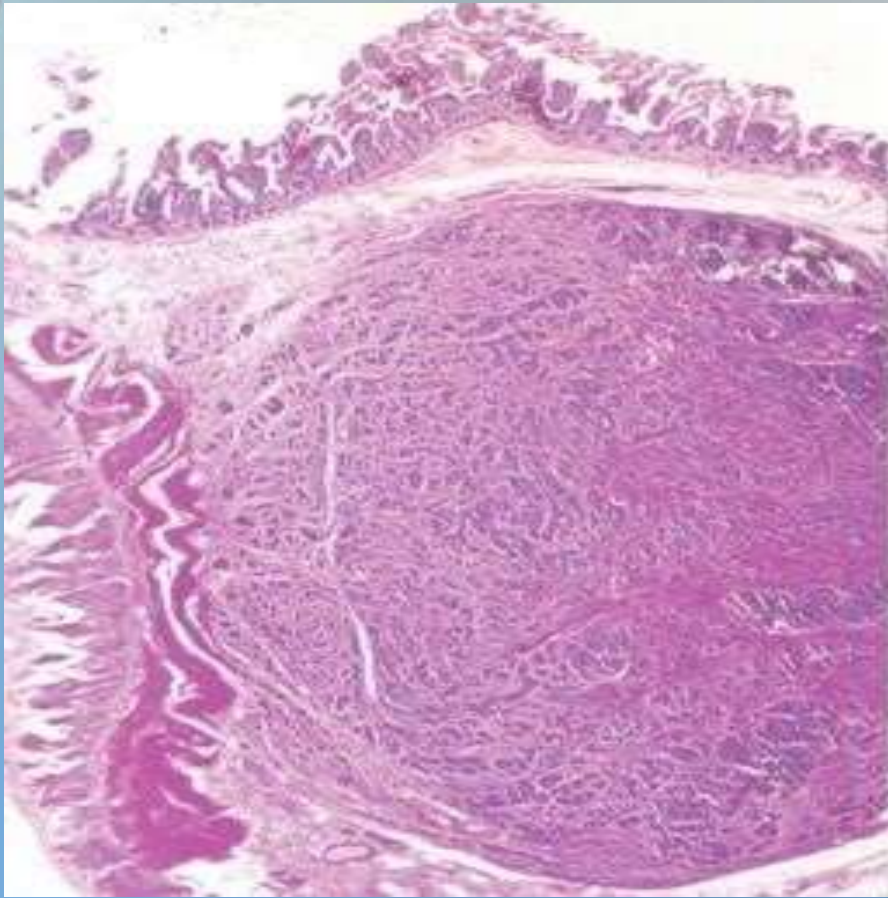
LINITIS PLASTICA



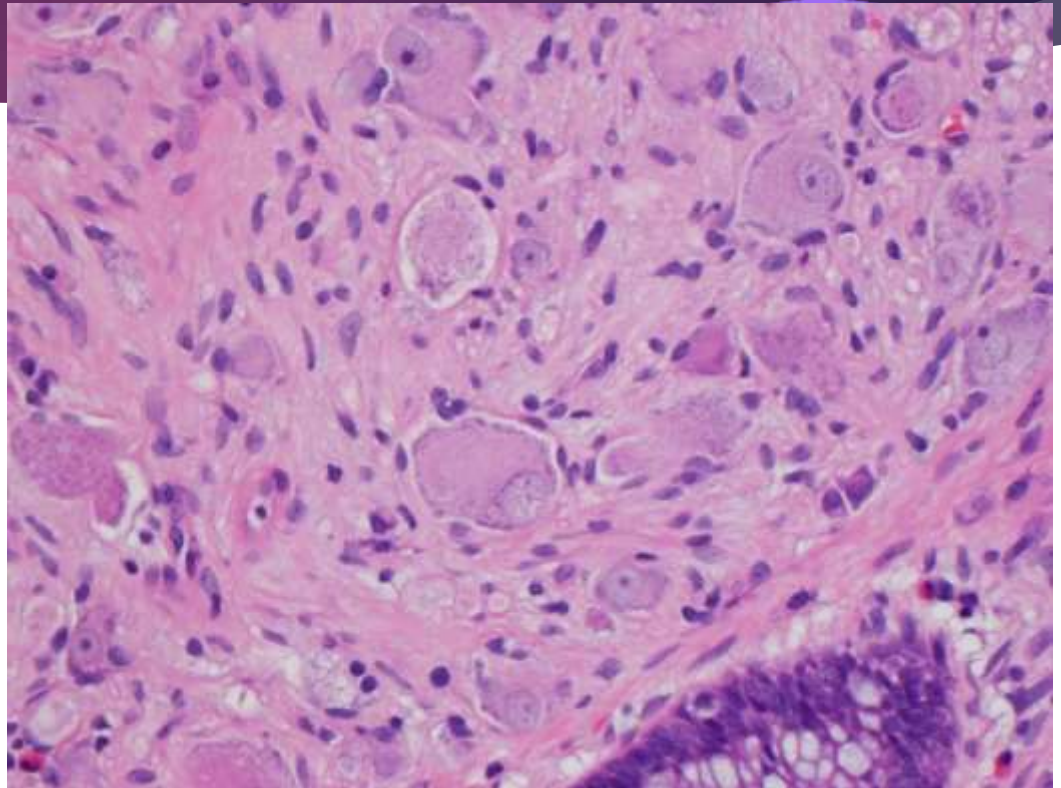
DIFFUSE TYPE, SIGNET RING CELLS



Islands, trabeculae, strands, glands, or sheets of uniform cells with scant, pink granular cytoplasm and salt and pepper chromatin.



ganglion cells

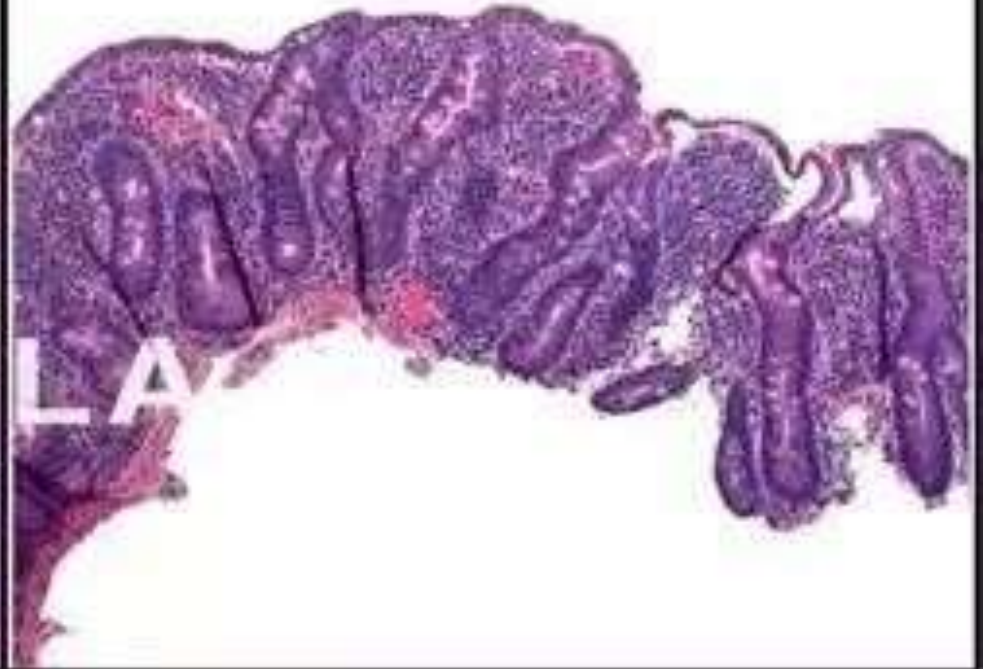


<http://www.pathologyoutlines.com>

Normal



Celiac Disease

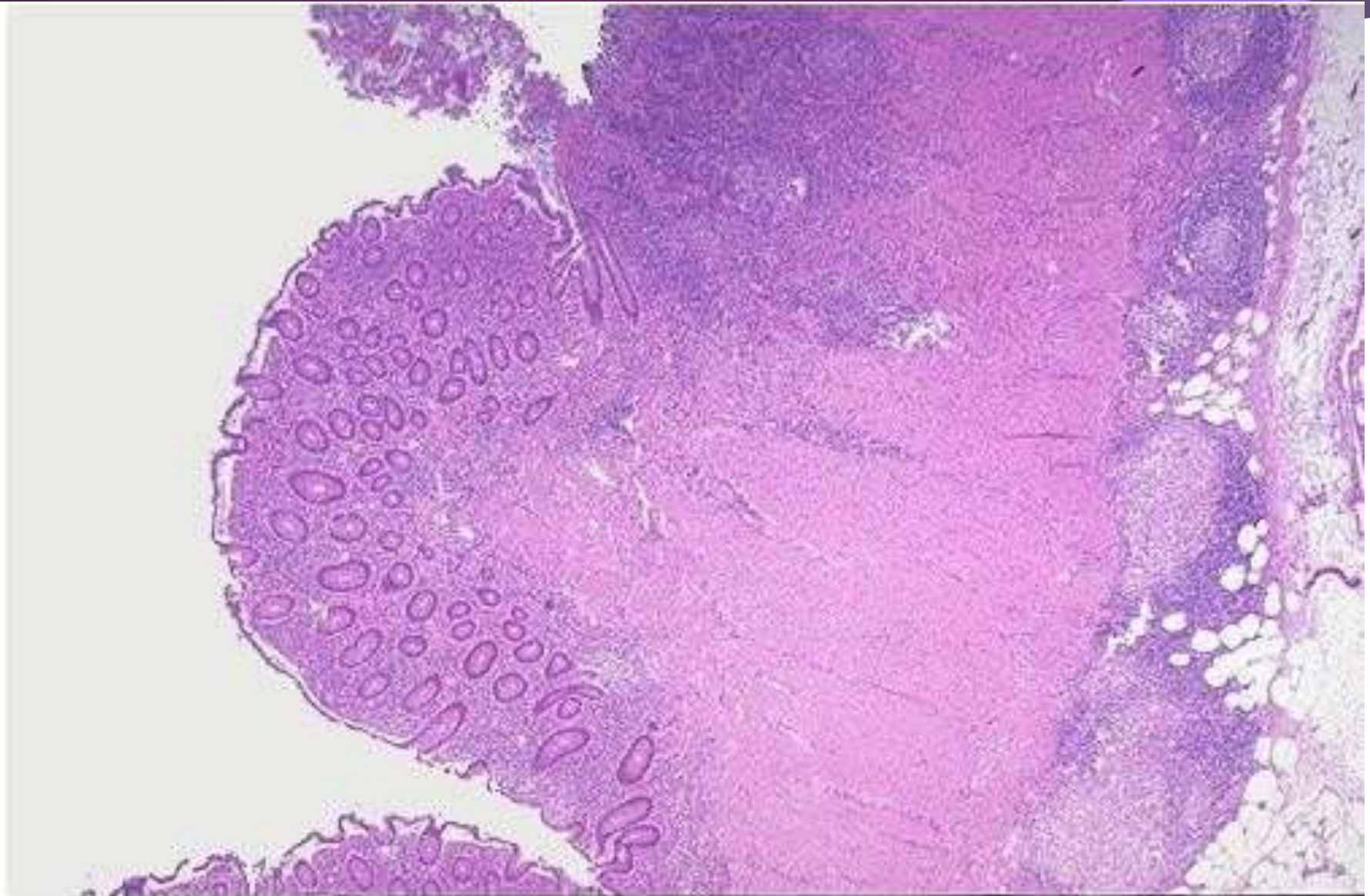


UCLA

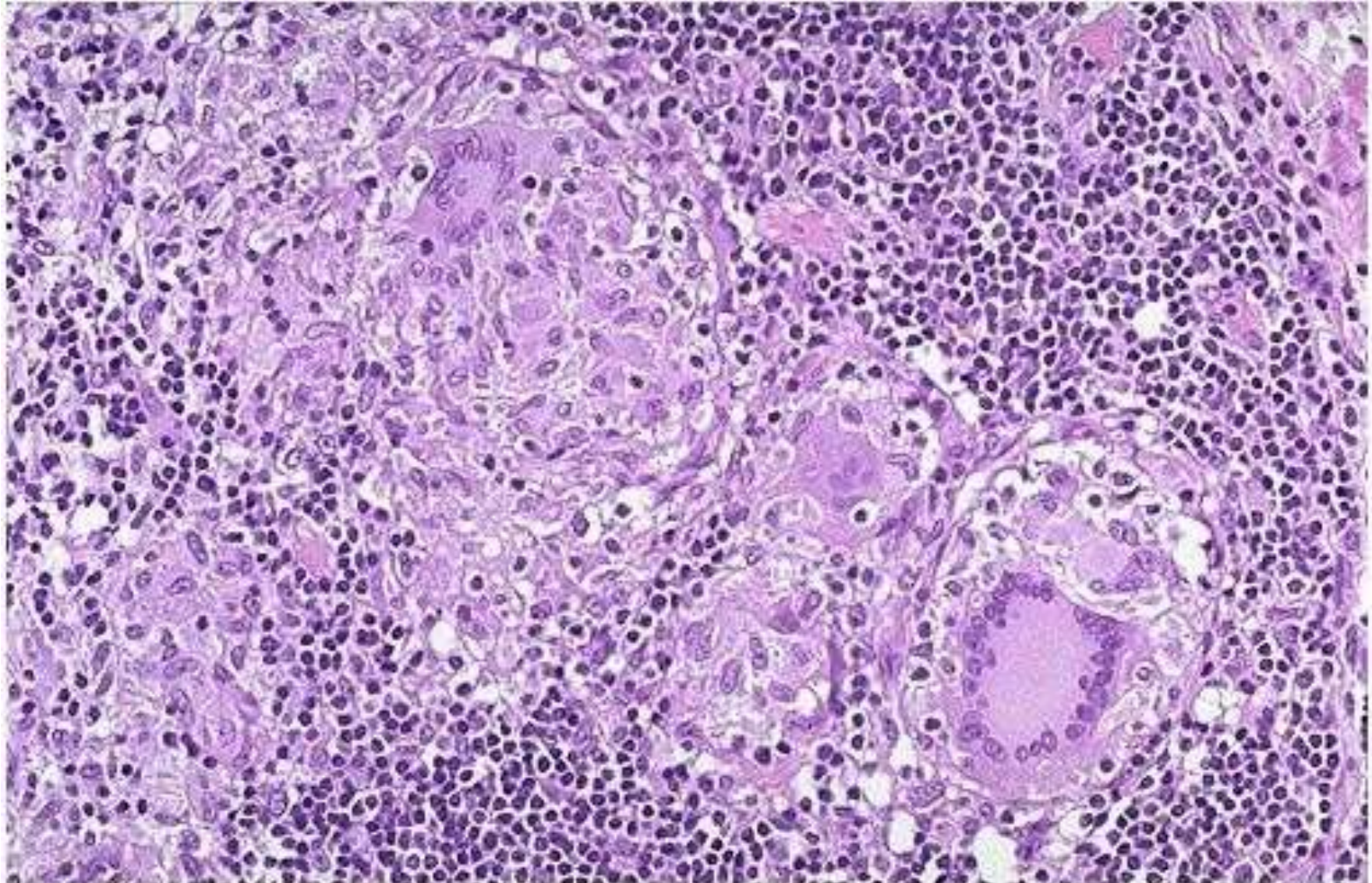
Dermatitis herpetiformis.



Transmural inflammation.



Non-caseating granuloma.

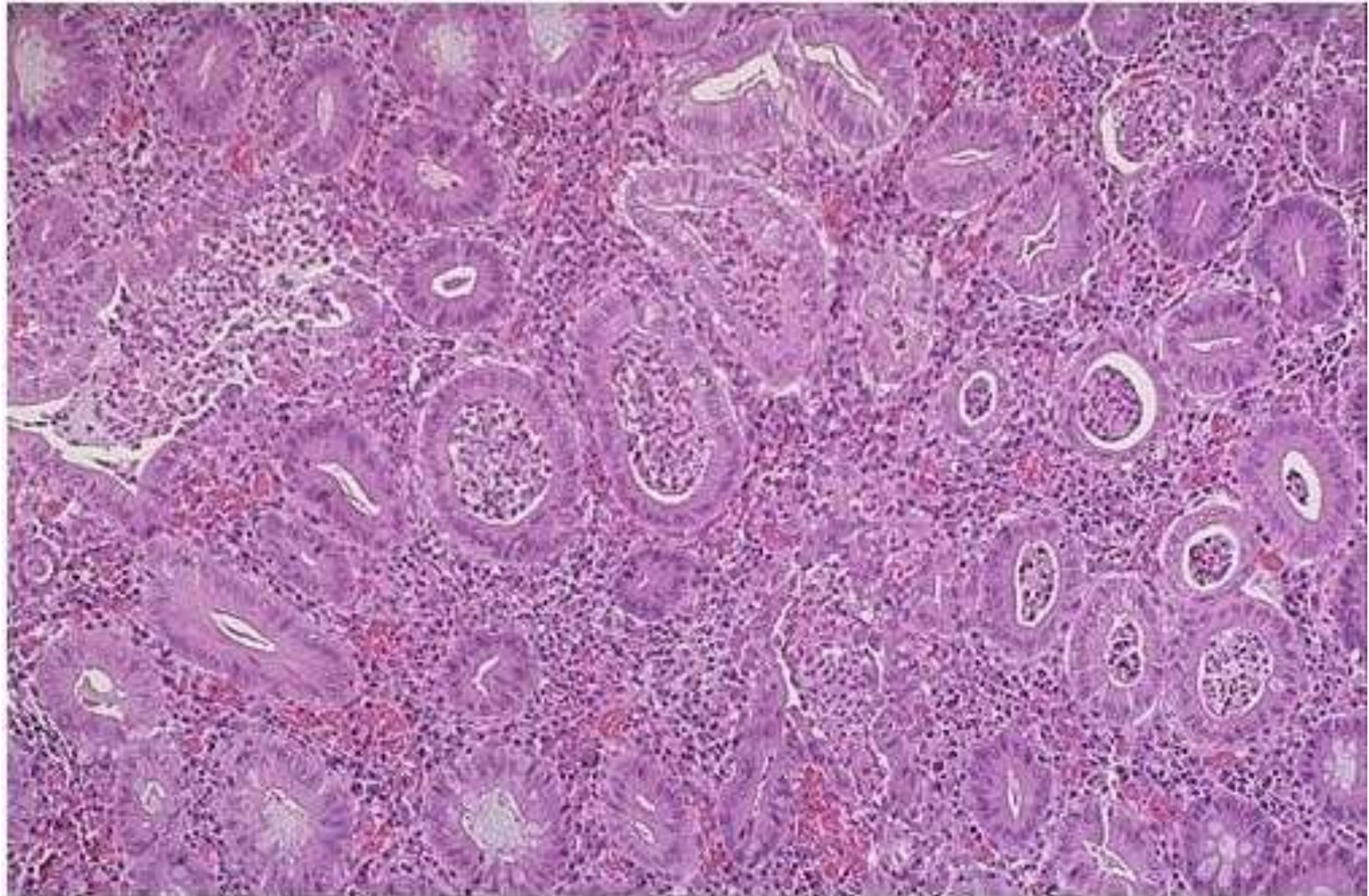


Erythema nodosum

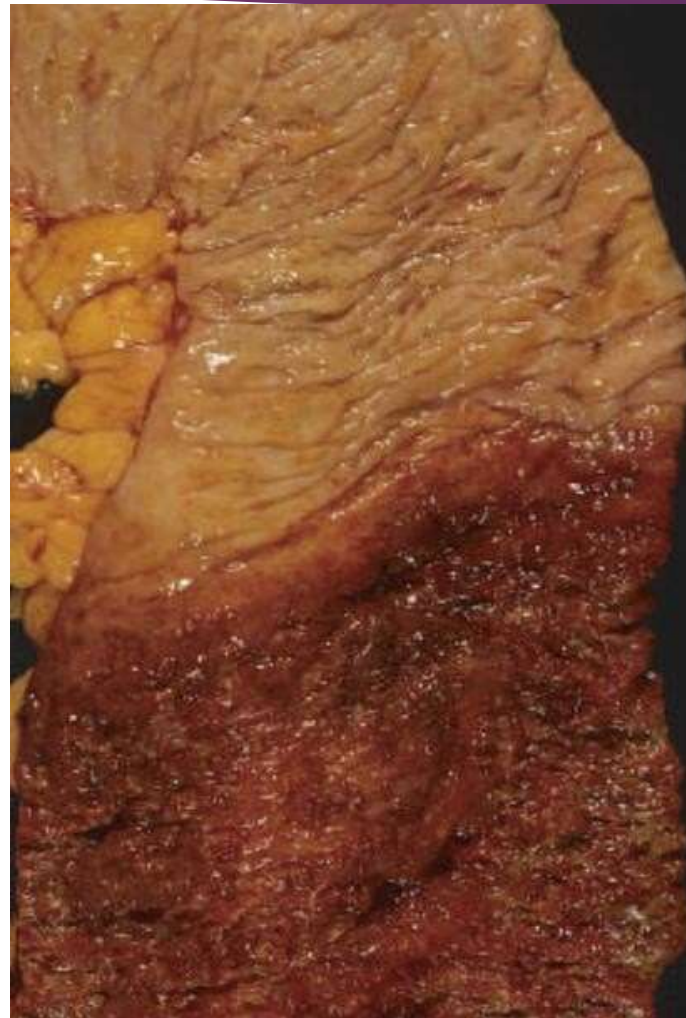


Neurology

Crypt abscesses.

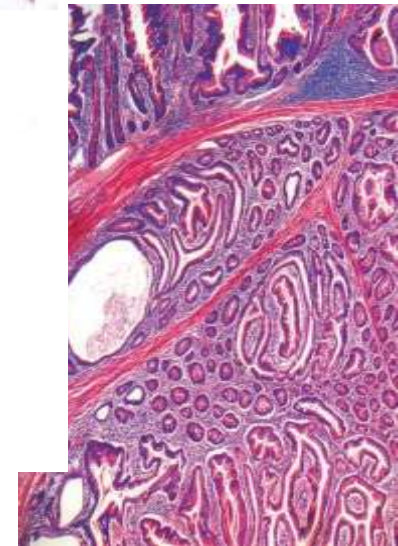
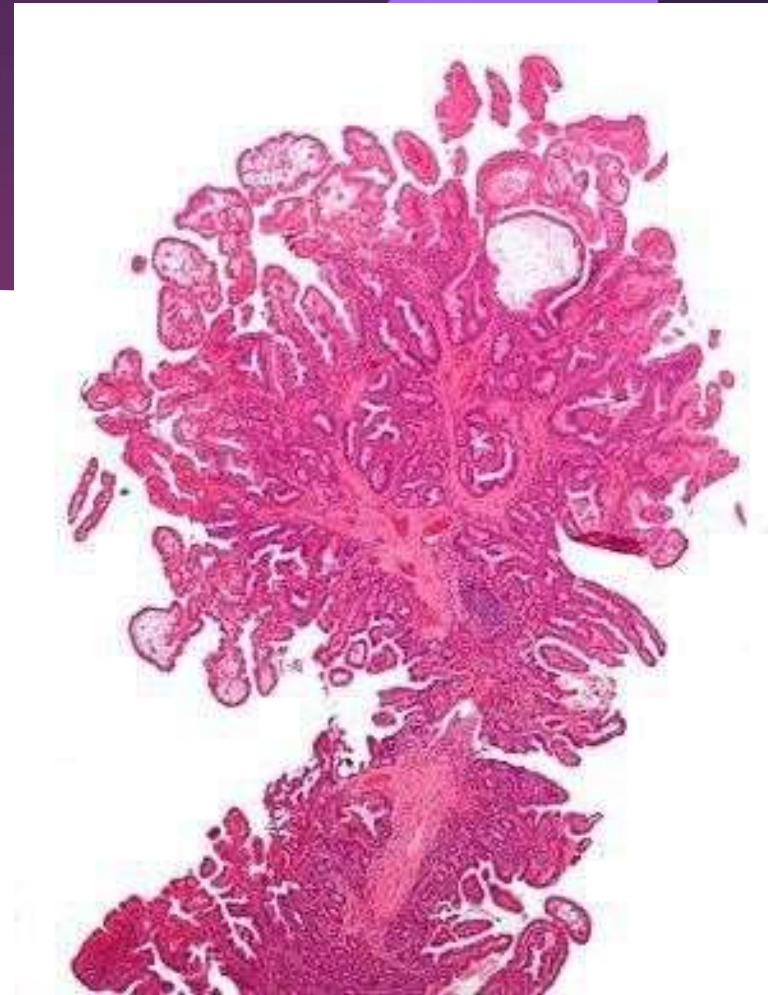


Abrupt transition b/w normal
and disease segment.



Peutz-Jeghers polyp

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

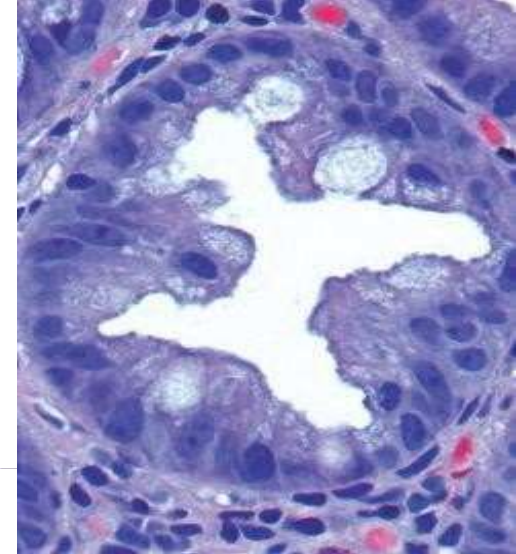
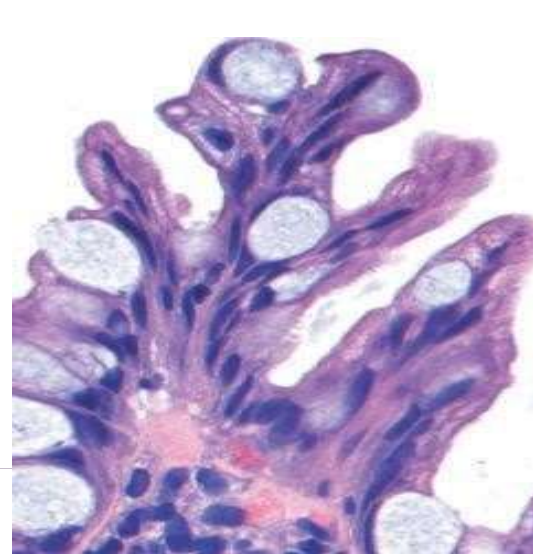
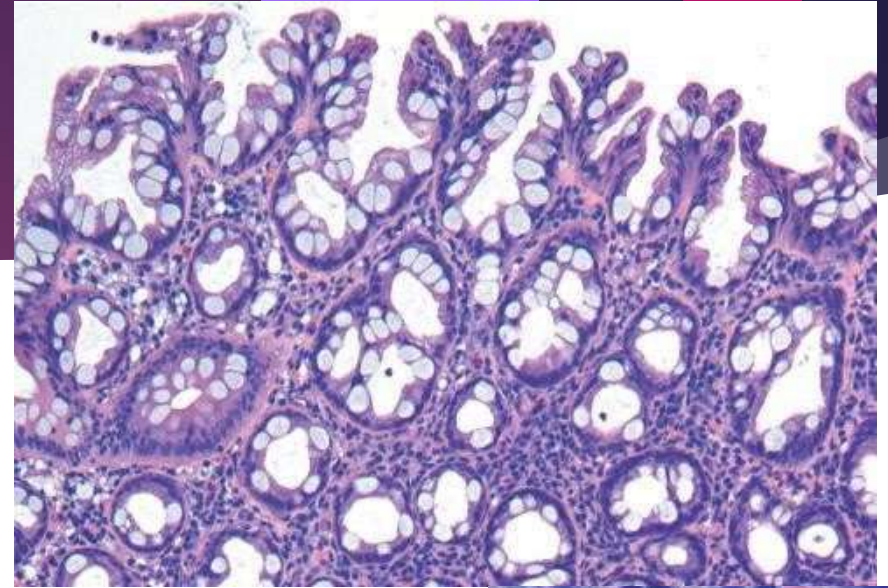


Mucocutaneous pigmentation

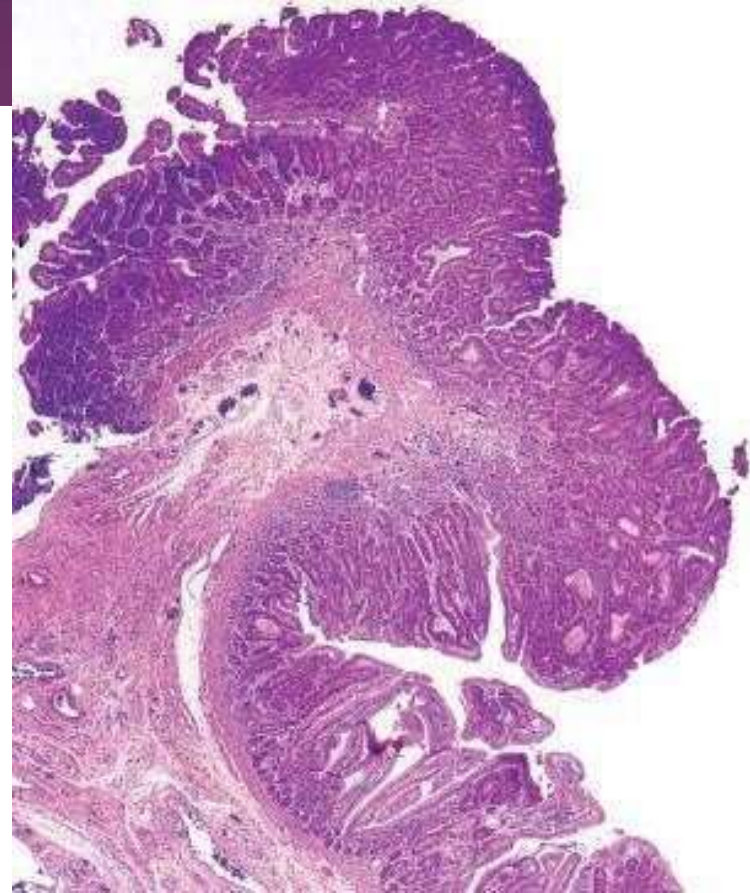
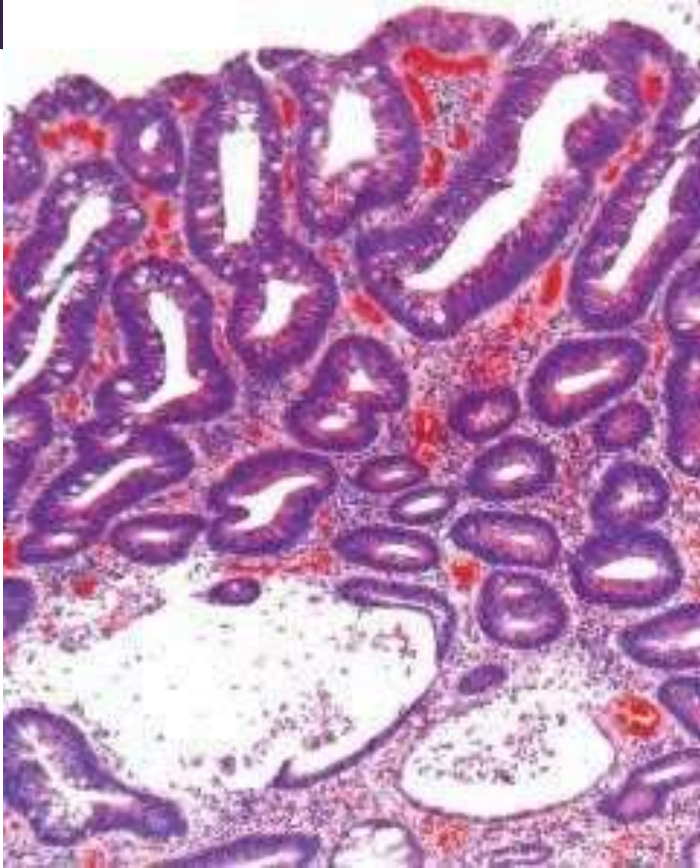


Hyperplastic polyp

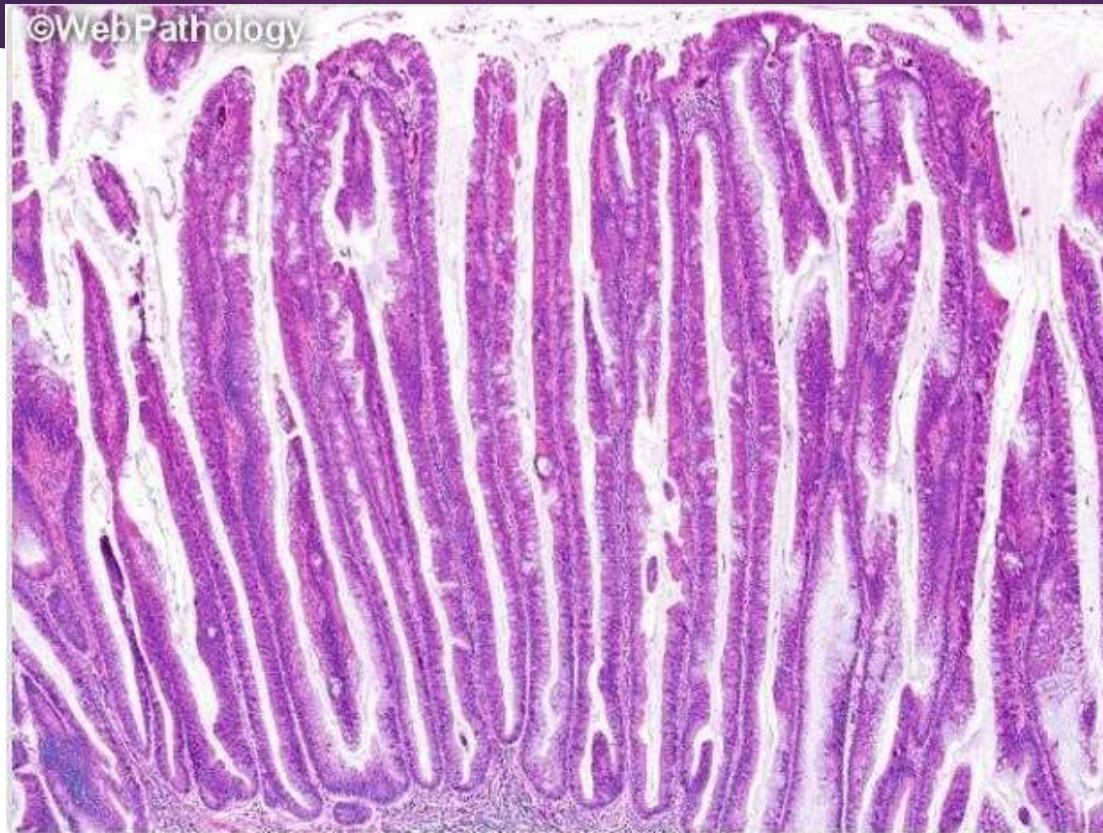
- ▶ Left colon
- ▶ Rectosigmoid.
- ▶ Small < 5 mm
- ▶ Multiple
- ▶ Crowding of goblet & absorptive cells.



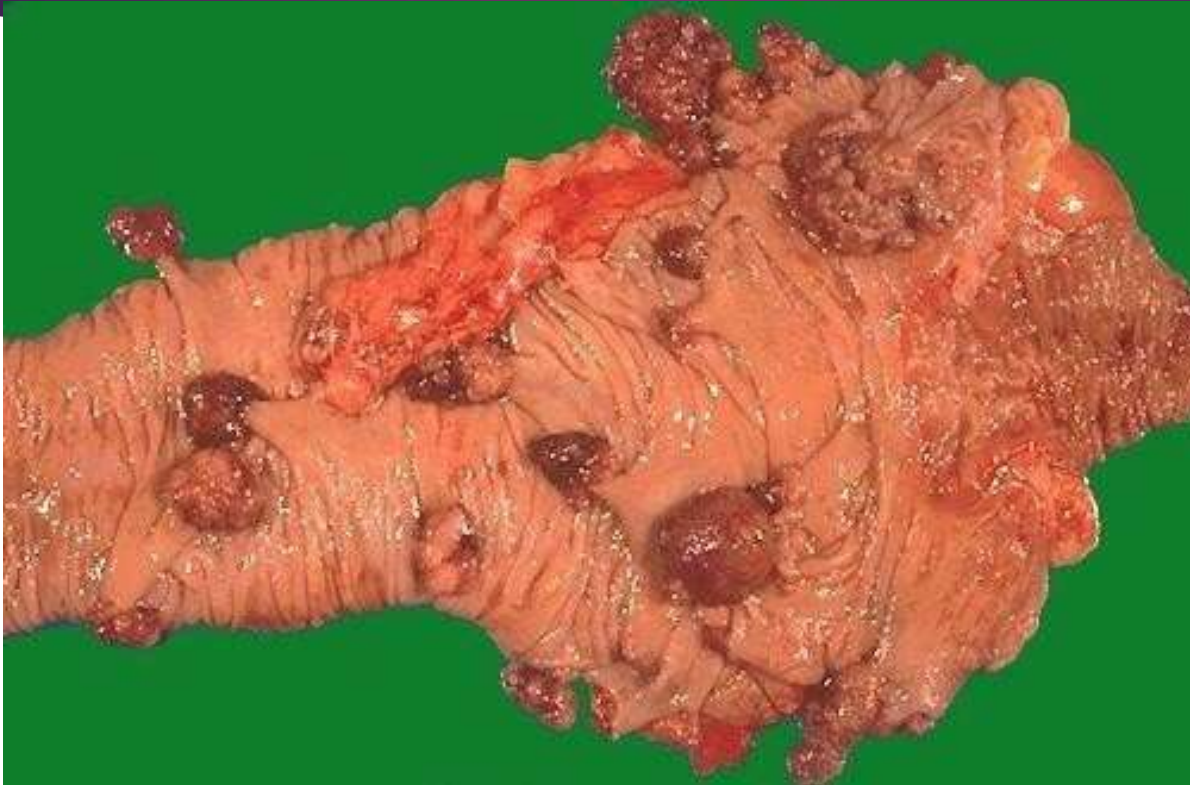
Tubular adenoma



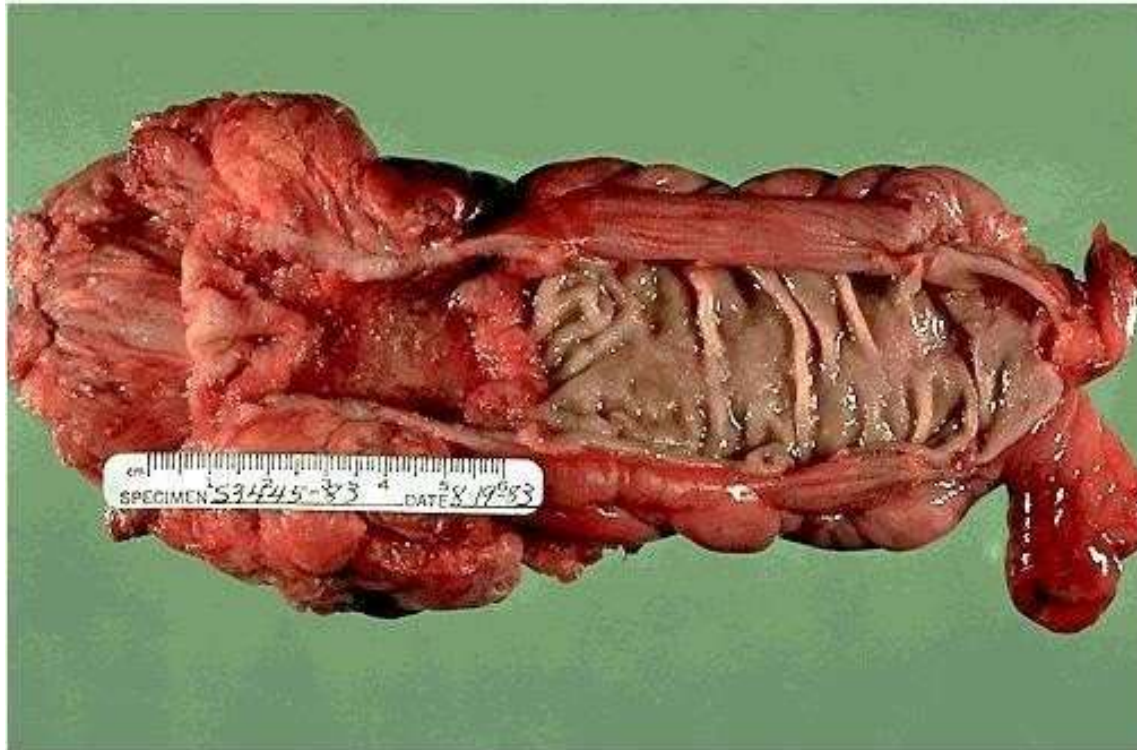
Villous adenoma



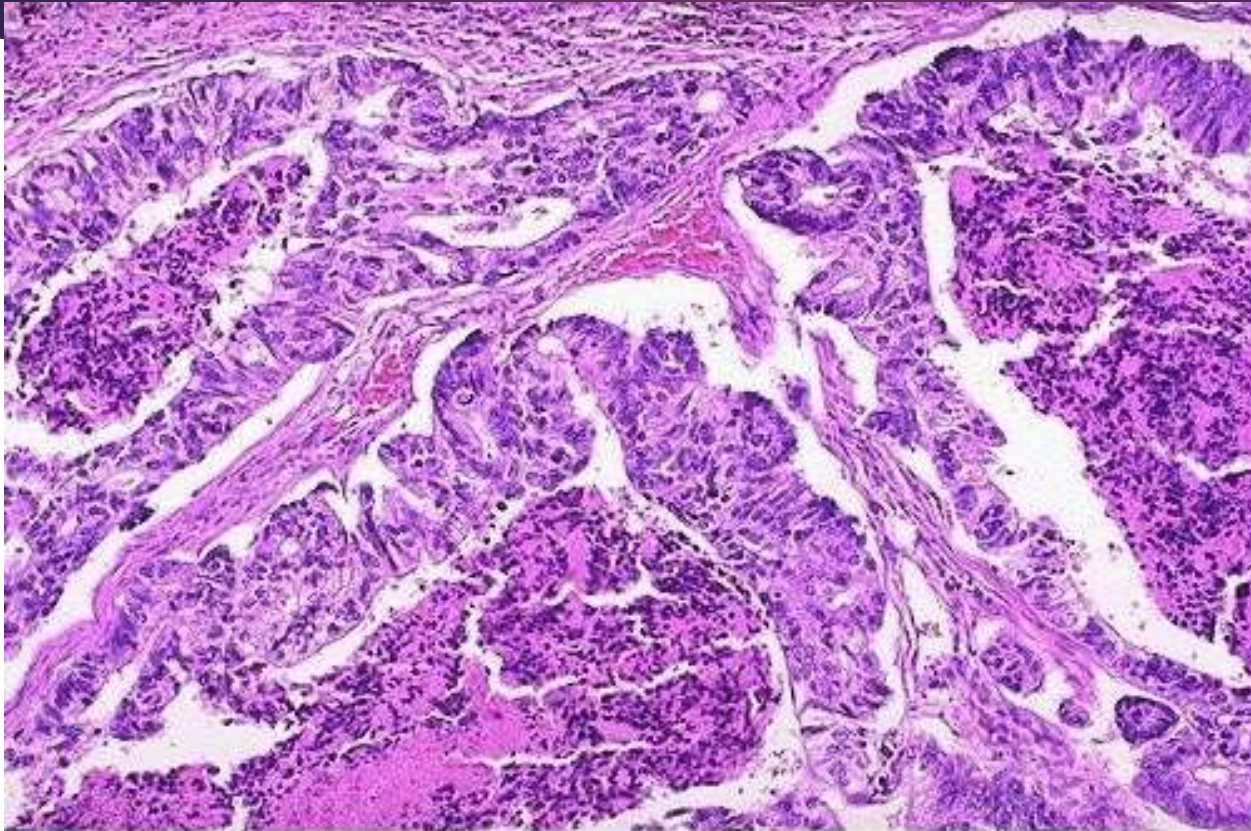
Cecal polyps in HNPCC.



Rectosigmoid adenocarcinoma, napkin ring



Adenocarcinoma with necrosis



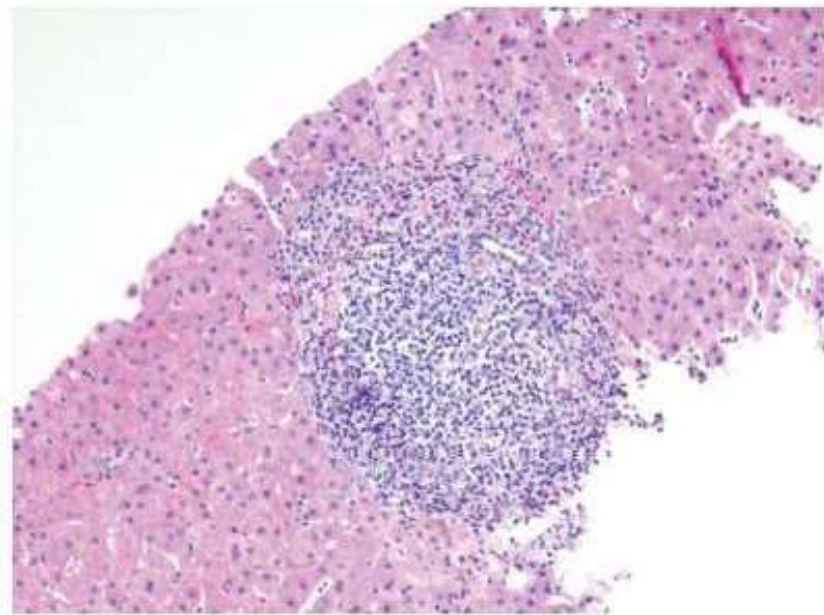


Fig. 16.15 Chronic viral hepatitis due to HCV, showing characteristic portal tract expansion by a dense lymphoid infiltrate.

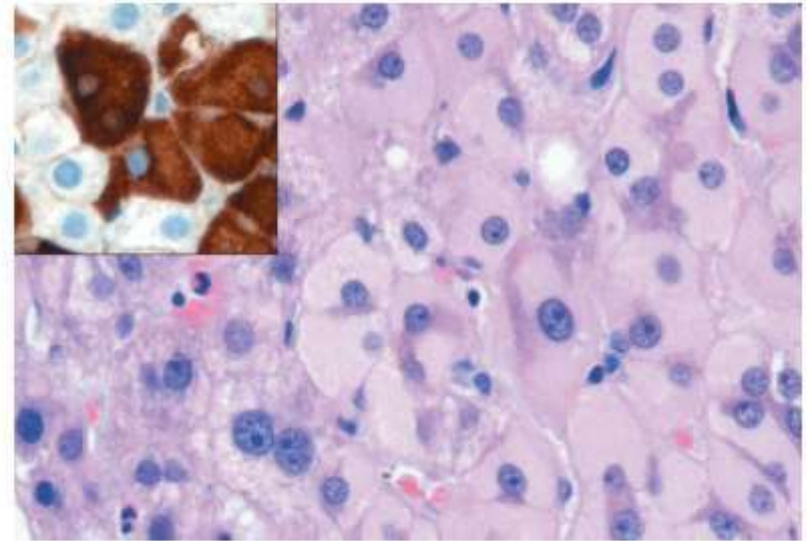
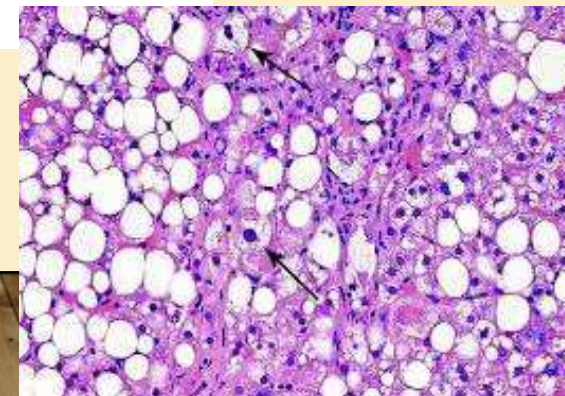
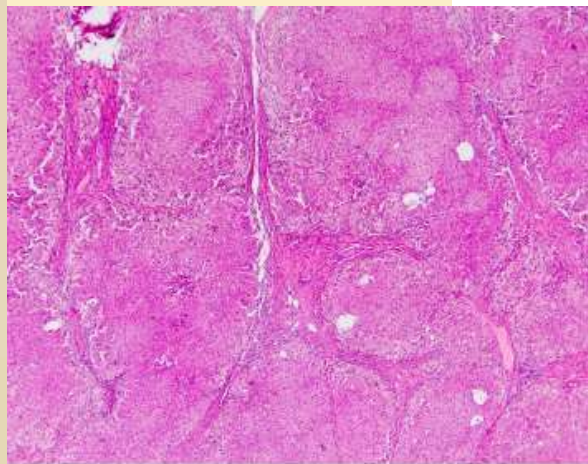
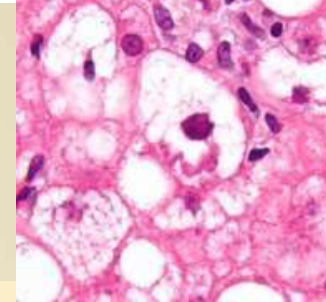
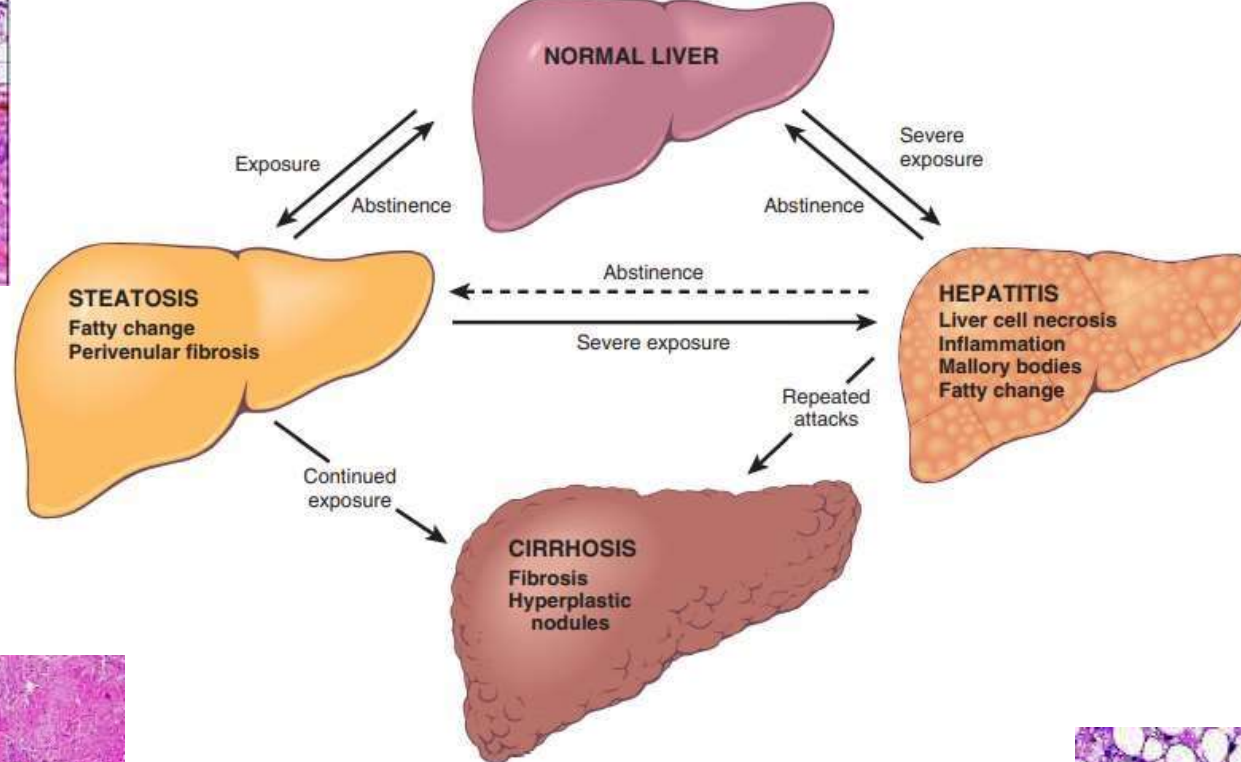
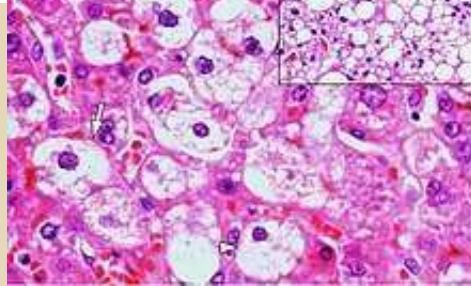
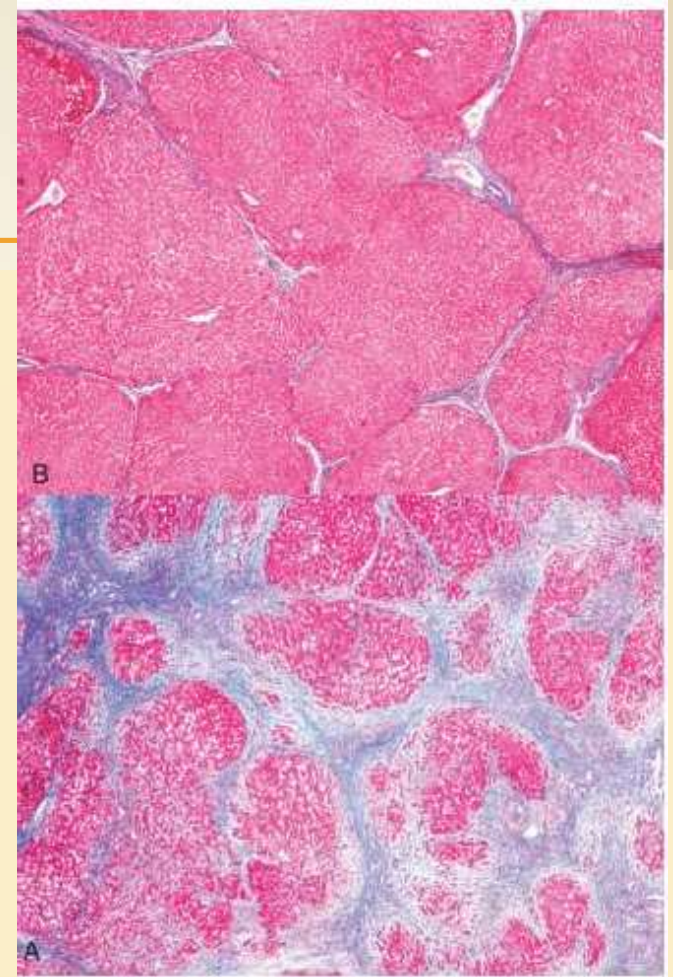


Fig. 16.14 Ground-glass hepatocytes in chronic hepatitis B, caused by accumulation of hepatitis B surface antigen. Hematoxylin-eosin staining shows the presence of abundant, finely granular pink cytoplasmic inclusions; immunostaining (*inset*) with a specific antibody confirms the presence of surface antigen (*brown*).



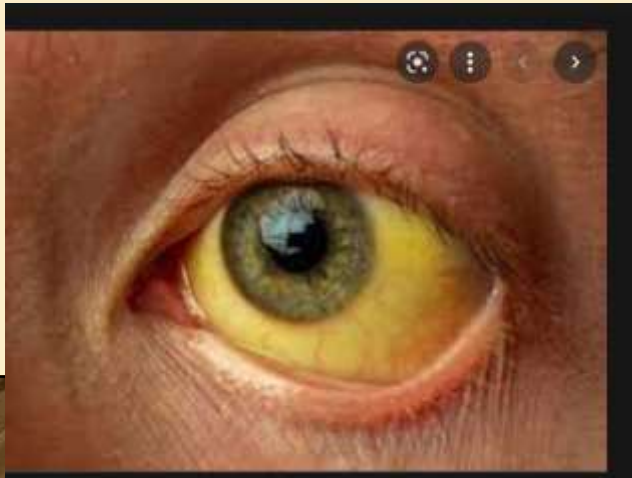
HISTOPATHOLOGY

- *diffuse transformation of the entire liver into regenerative parenchymal nodules surrounded by fibrous bands.
- * ductular reactions.
- * (Masson trichrome stain) highlights these fibrous septa.



CLINICAL FEATURES

- 1. 40% of individuals with cirrhosis are asymptomatic until the most advanced stages of the disease.
- 2. Non specific symptoms such as anorexia, weight loss, weakness.
- 3. signs and symptoms of liver failure e.g Jaundice, encephalopathy, and coagulopathy.
- 4. Pruritus, portal hypertention (intrahepatic vascular resistance).



5. Hyperestrogenemia:

- due to impaired estrogen metabolism in male patients with chronic liver failure can give rise to palmar erythema (a reflection of local vasodilatation) and spider angiomas of the skin. Such male hyperestrogenemia also leads to hypogonadism and gynecomastia.
- 6. hepatocellular carcinoma (HCC).



- Patients may have :

- Jaundice.

- Pruritus.

- skin xanthomas (focal accumulation of cholesterol).

- symptoms related to intestinal malabsorption, including nutritional deficiencies of the fat-soluble vitamins A, D, or K.

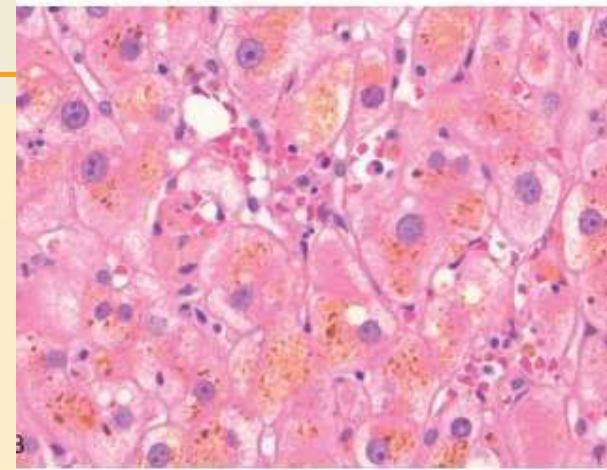
Lab:

elevated serum alkaline phosphatase and
 γ -glutamyl transpeptidase (GGT),



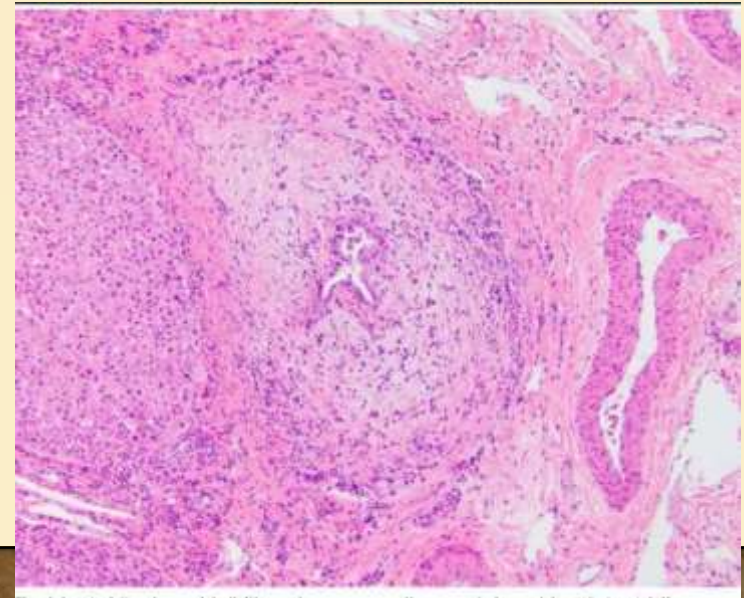
HISTOPATHOLOGY

- accumulation of bile pigment within the hepatic parenchyma.
- Rupture of canaliculi leads to extravasation of bile, which is quickly phagocytosed by Kupffer cells.
- feathery degeneration:
- Droplets of bile pigment accumulate within hepatocytes, give them foamy appearance



D. PRIMARY SCLEROSING CHOLANGITIS

- Primary sclerosing cholangitis (PSC) is characterized by inflammation and obliterative fibrosis of intrahepatic and extrahepatic bile ducts, leading to dilation of preserved segments.
- Classic finding is "onion skin" fibrosis around affected bile ducts



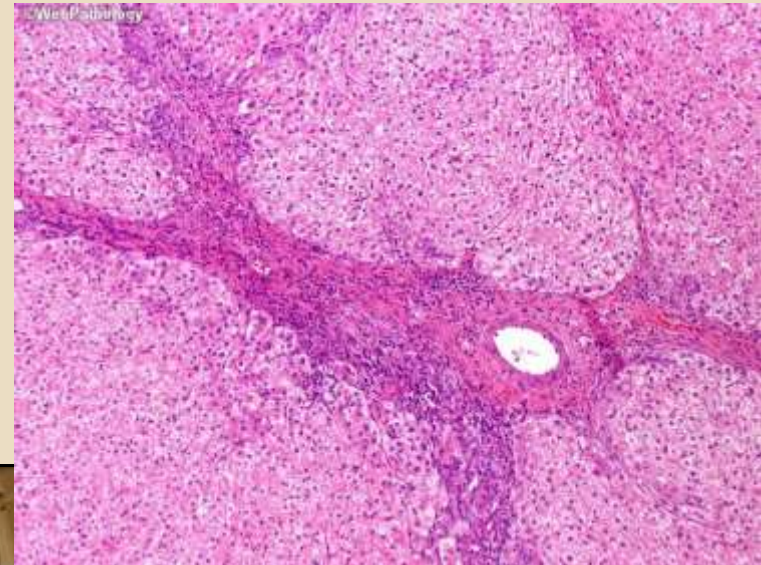
FOCAL NODULAR HYPERPLASIA: GROSS.

- well-demarcated, poorly encapsulated nodule in an otherwise normal liver.
- there is a central gray-white, depressed stellate scar from which fibrous septa radiate to the periphery.



FOCAL NODULAR HYPERPLASIA: MICROSCOPICALLY.

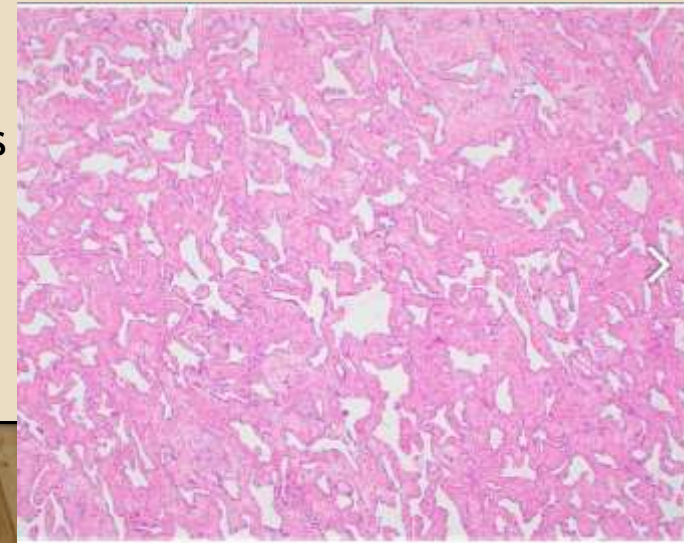
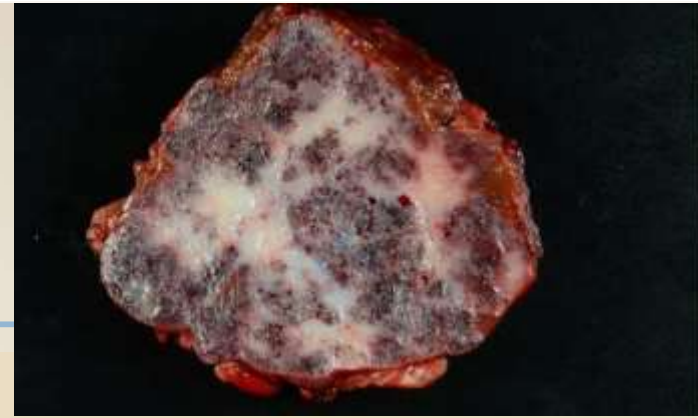
- The central scar contains large abnormal vessels and ductular reactions along the spokes of scar.
- The hyperplastic regions are composed of normal hepatocytes separated by thickened sinusoidal plates



BENIGN NEOPLASMS

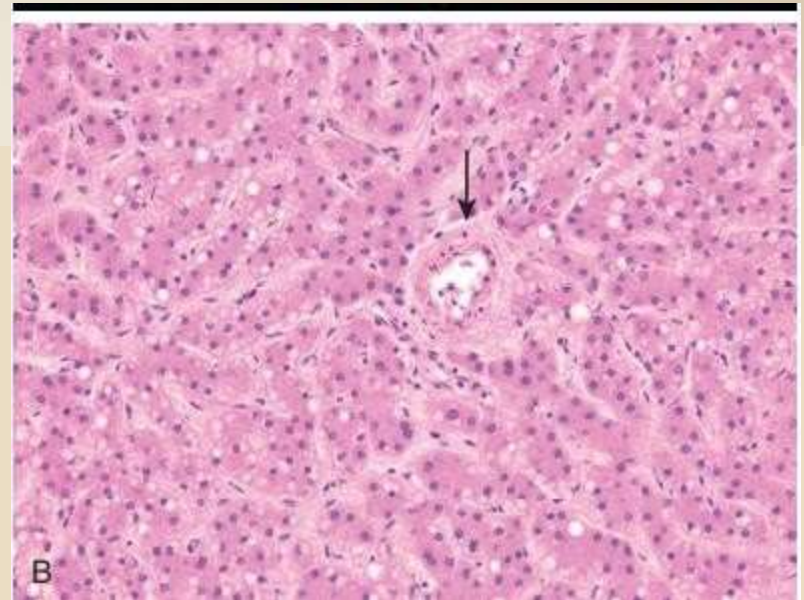
❖ 1. Cavernous hemangiomas:

- the most common benign tumor of the liver.
- Vast majority of hemangiomas are asymptomatic and require no intervention.
- **Gross description:**
 - Well circumscribed with red-brown, spongy / honeycombed cut surface
- **Microscopic:**
 - Circumscribed proliferation of variably sized, dilated and thin walled vessels





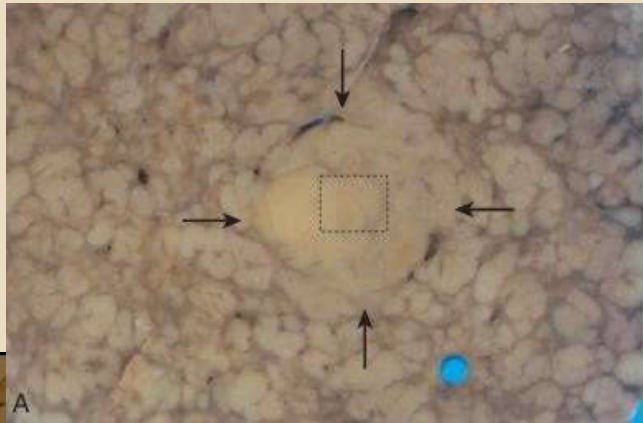
- solitary well circumscribed uncapsulated lesion.



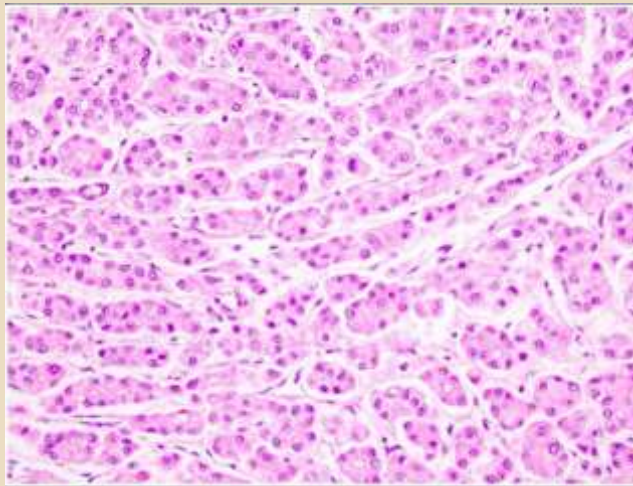
Microscopic view showing cords of hepatocytes, with an arterial vascular supply (arrow) and no portal tracts.

MORPHOLOGY

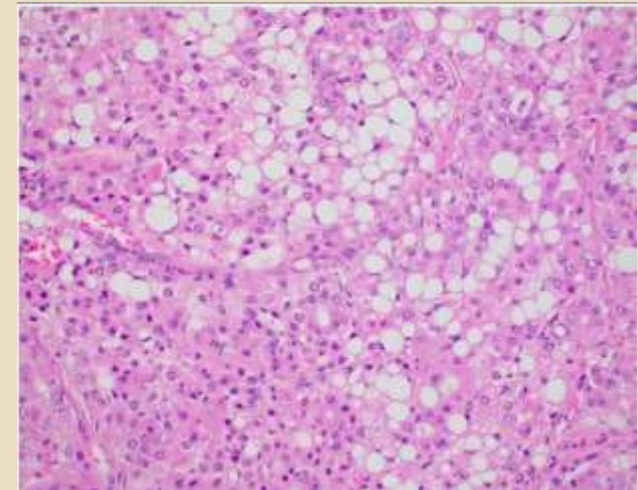
- HCC may appear grossly as:
- (1) a unifocal (usually large) mass.
- (2) multifocal, widely distributed nodules of variable size.
- (3) a diffusely infiltrative cancer,



- HCCs range from :
- well differentiated to highly anaplastic lesions.



Well-differentiated HCCs are composed of cells that look like normal hepatocytes and grow as thick trabeculae



tumor cells appear malignant on H&E and often cannot be distinguished from other poorly differentiated neoplasms;

MORPHOLOGY

- Most tumors appear as firm, gray nodules within the bile duct wall.
- Cholangiocarcinomas are typical mucin-producing adenocarcinomas. Most are well to moderately differentiated, growing as glandular/tubular structures lined by malignant epithelial cells.

