Al-Mustaqbal University

Pathophysiology 3rd stage

Lab - 3 -

GIT disorders slides & Thrombus slides

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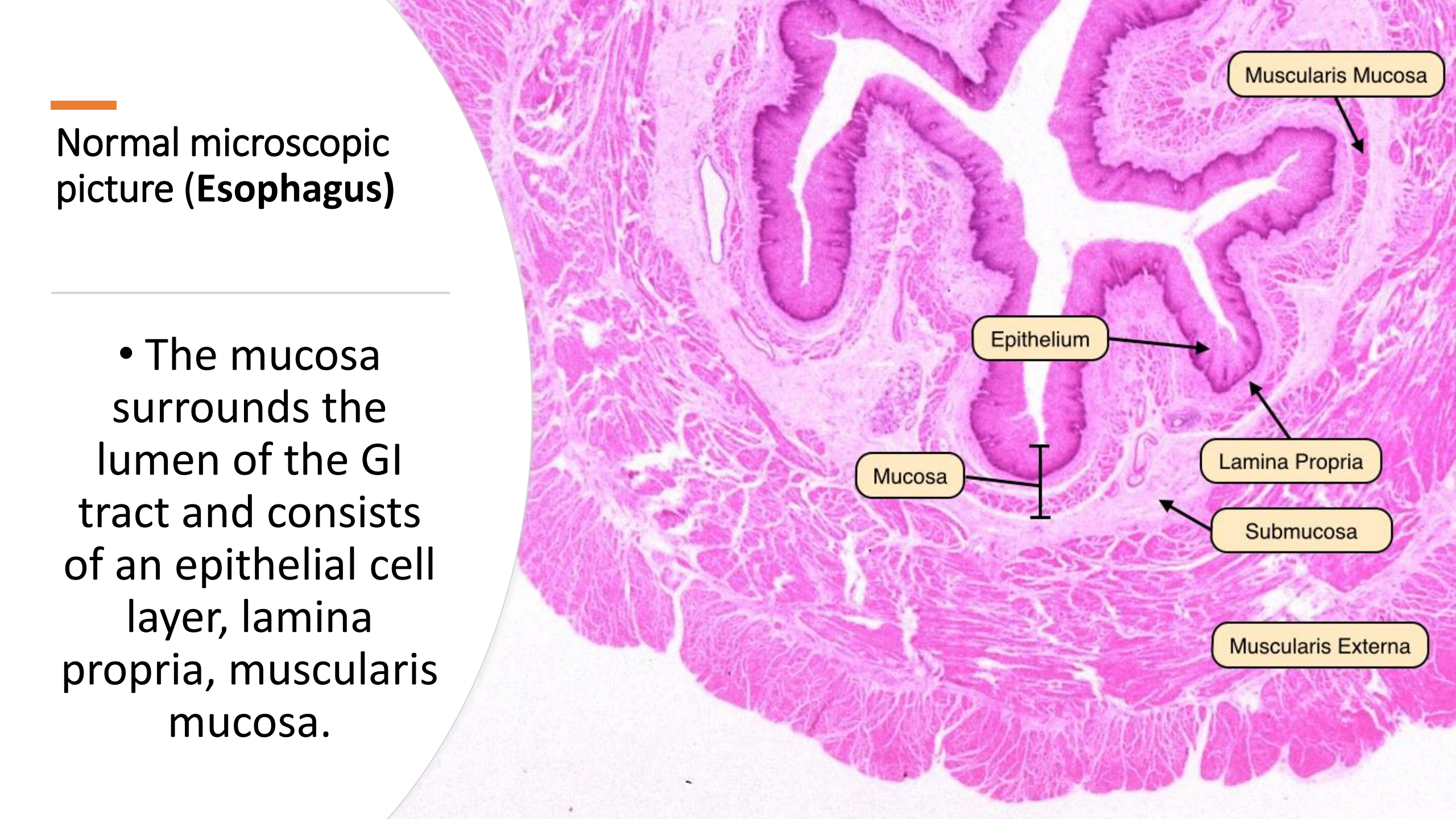
Basic Organization of the Gastrointestinal Tract

The GI tract is a muscular tube lined by a mucous membrane and features a basic histological organization:

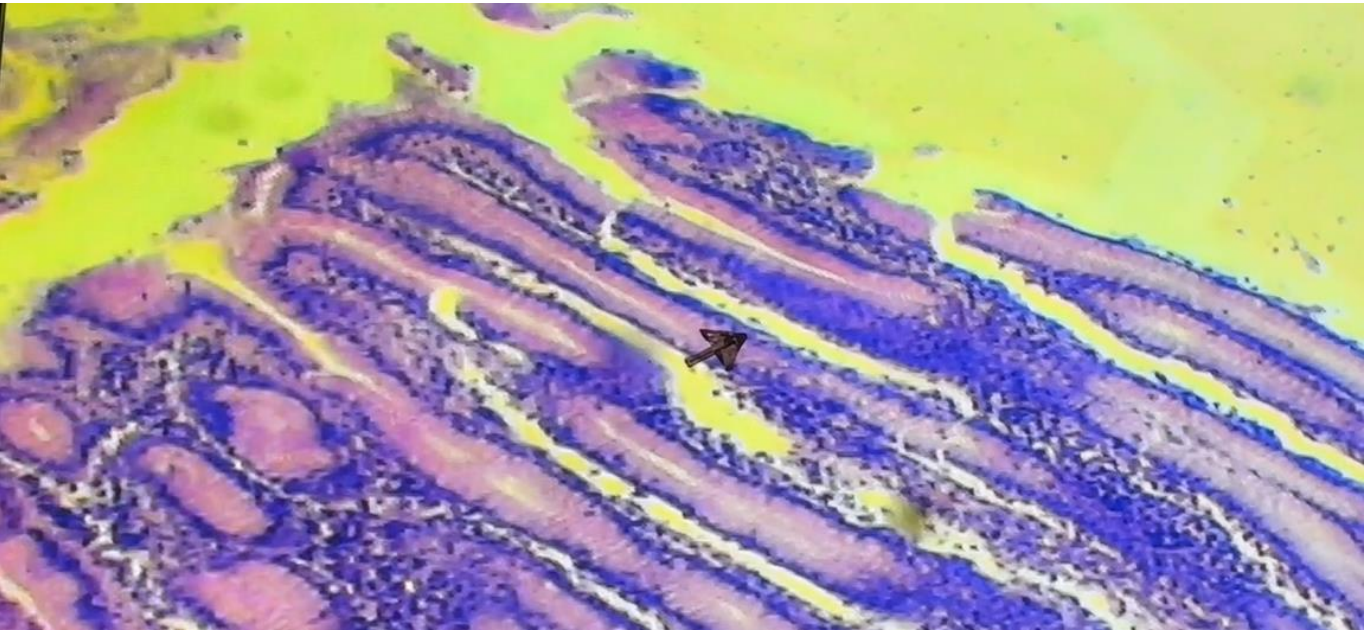
- The mucosa surrounds the lumen of the GI tract and consists of an **epithelial cell layer**, **lamina propria**, **muscularis mucosa**.
- The submucosa is a thick connective tissue layer that contains arteries, veins, lymphatics, and nerves.
- The muscularis externa surrounds the submucosa (the inner circular layer and outer longitudinal layer).
- The adventitia consists of connective tissue containing blood vessels, nerves, and fat.

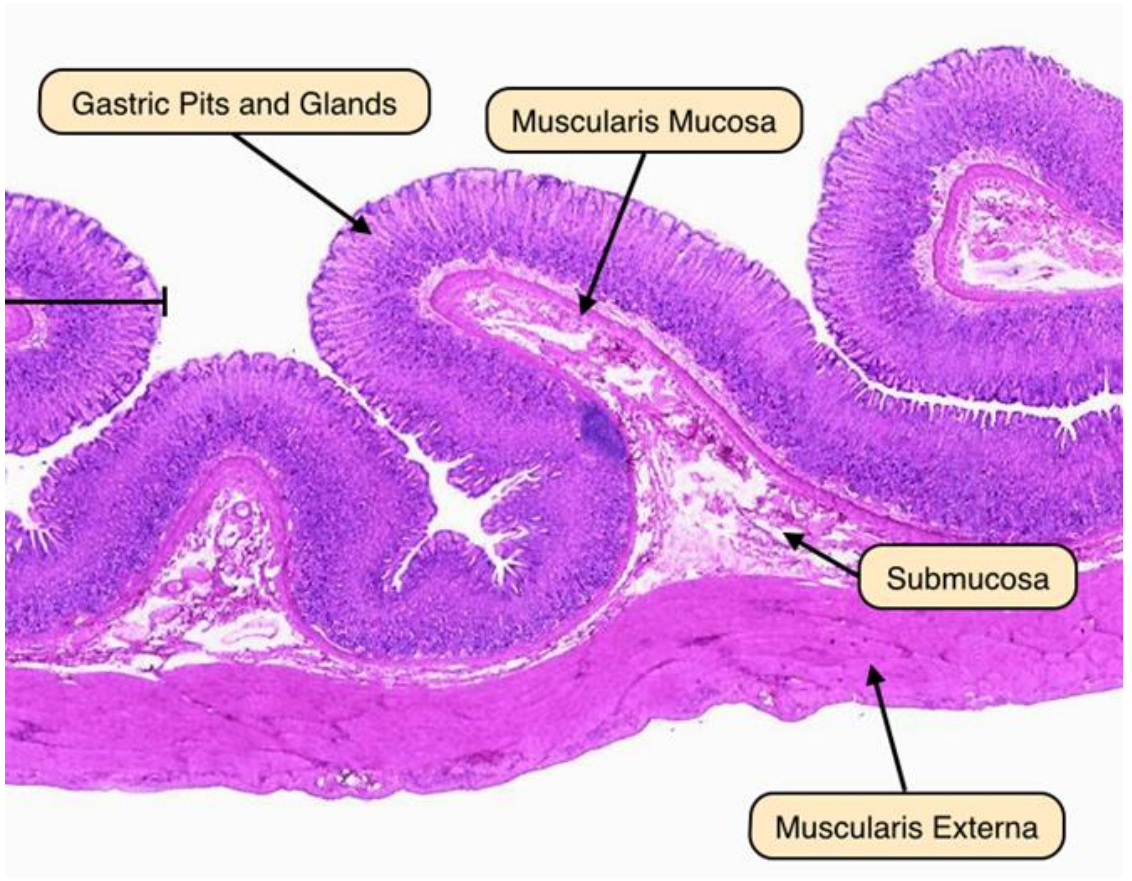
Normal microscopic picture (**Esophagus)**

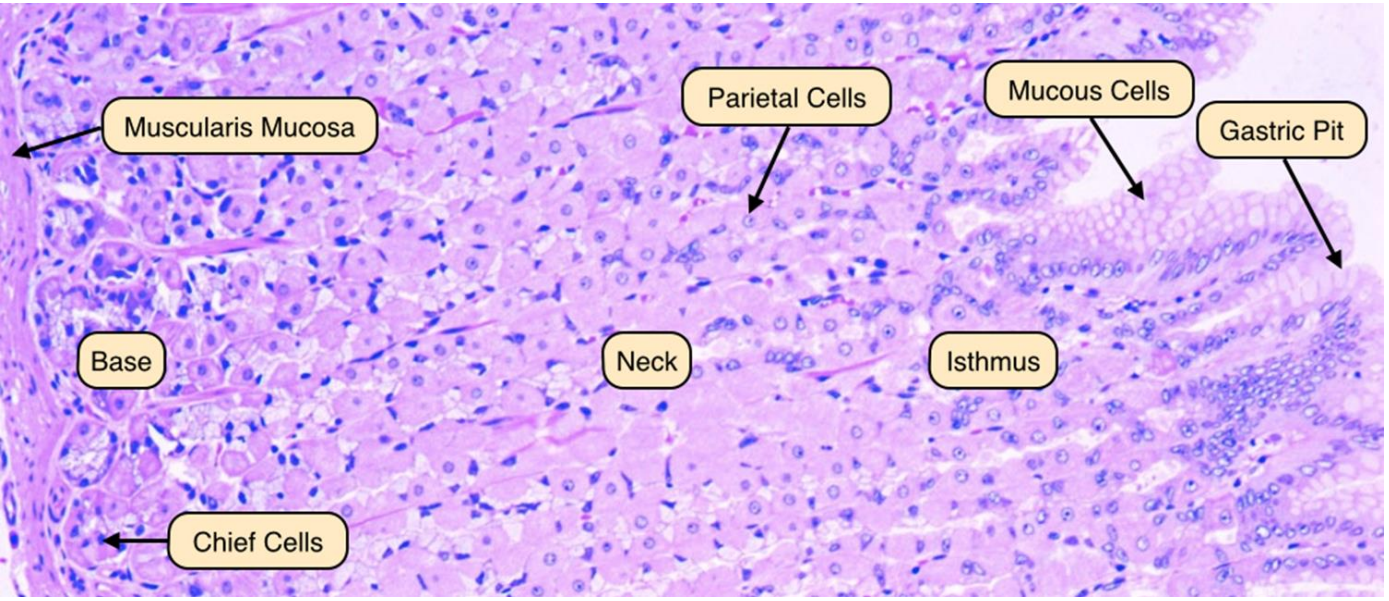
- The mucosa surrounds the lumen of the GI tract and consists of an epithelial cell layer, lamina propria, muscularis mucosa.



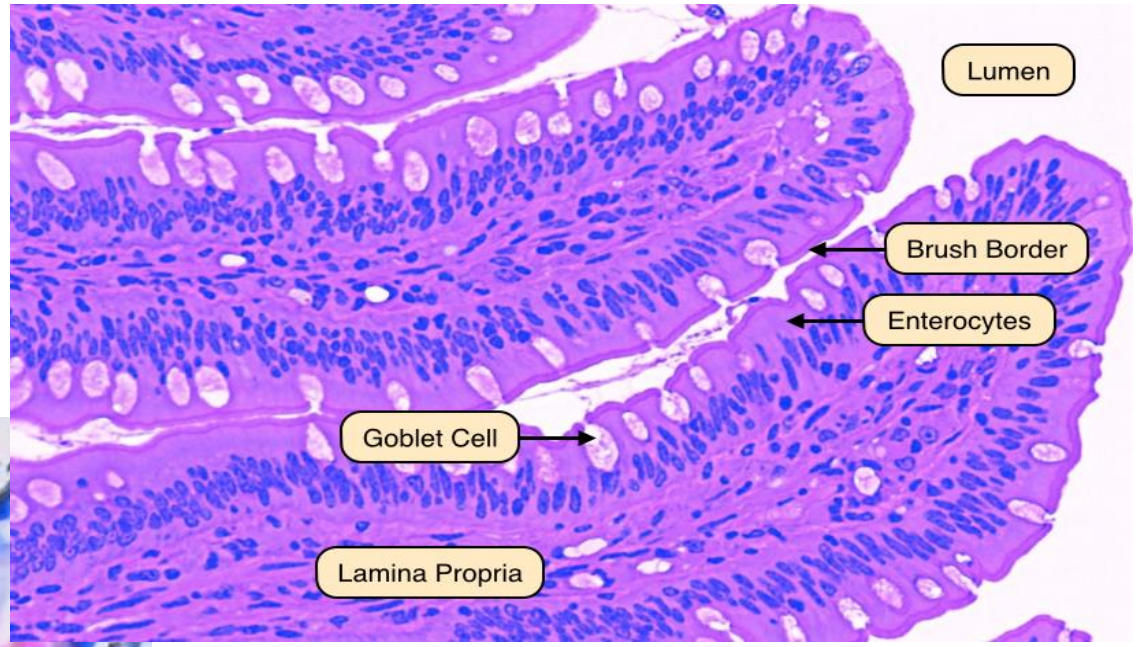
Normal microscopic pictures (Stomach)



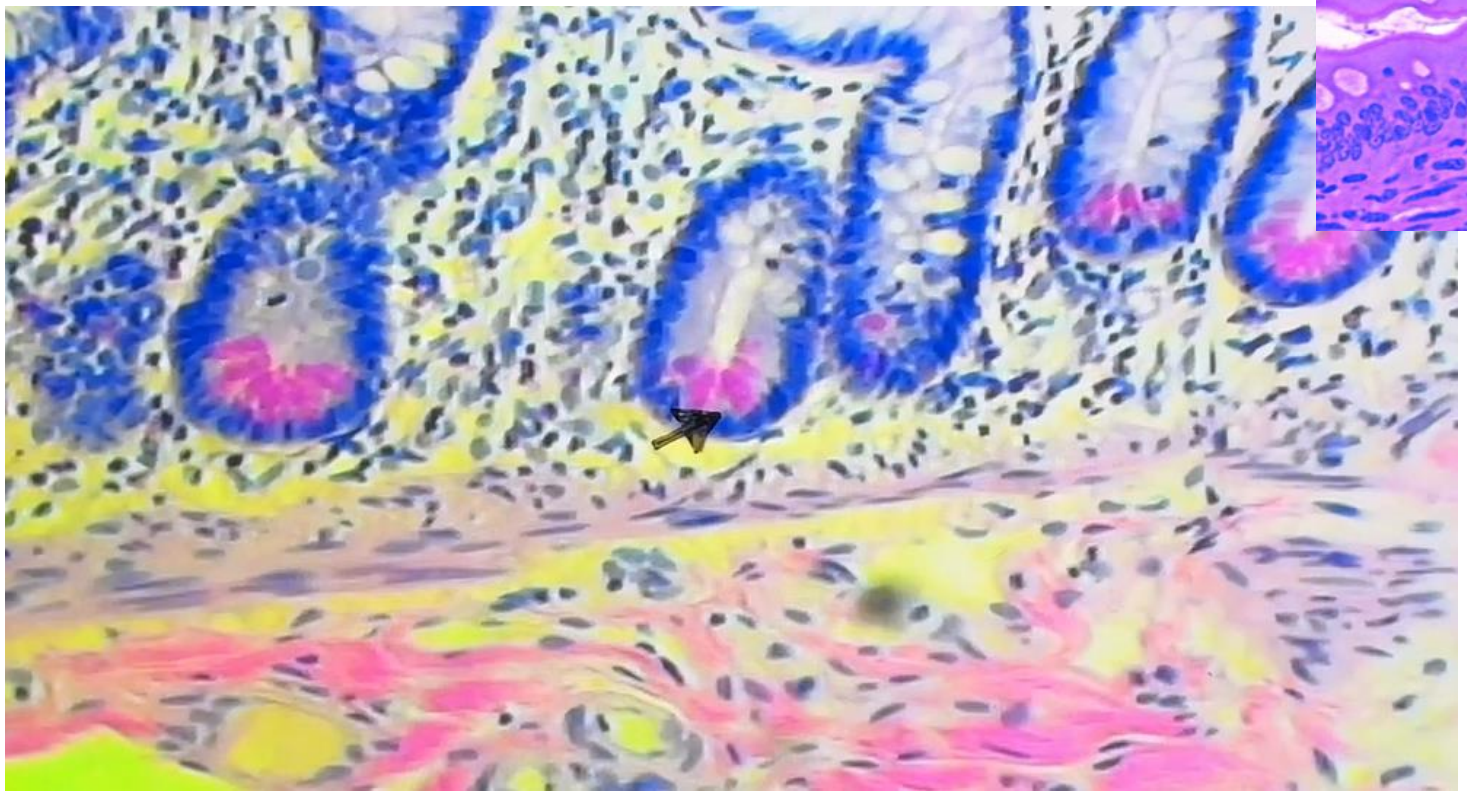




Normal microscopic pictures

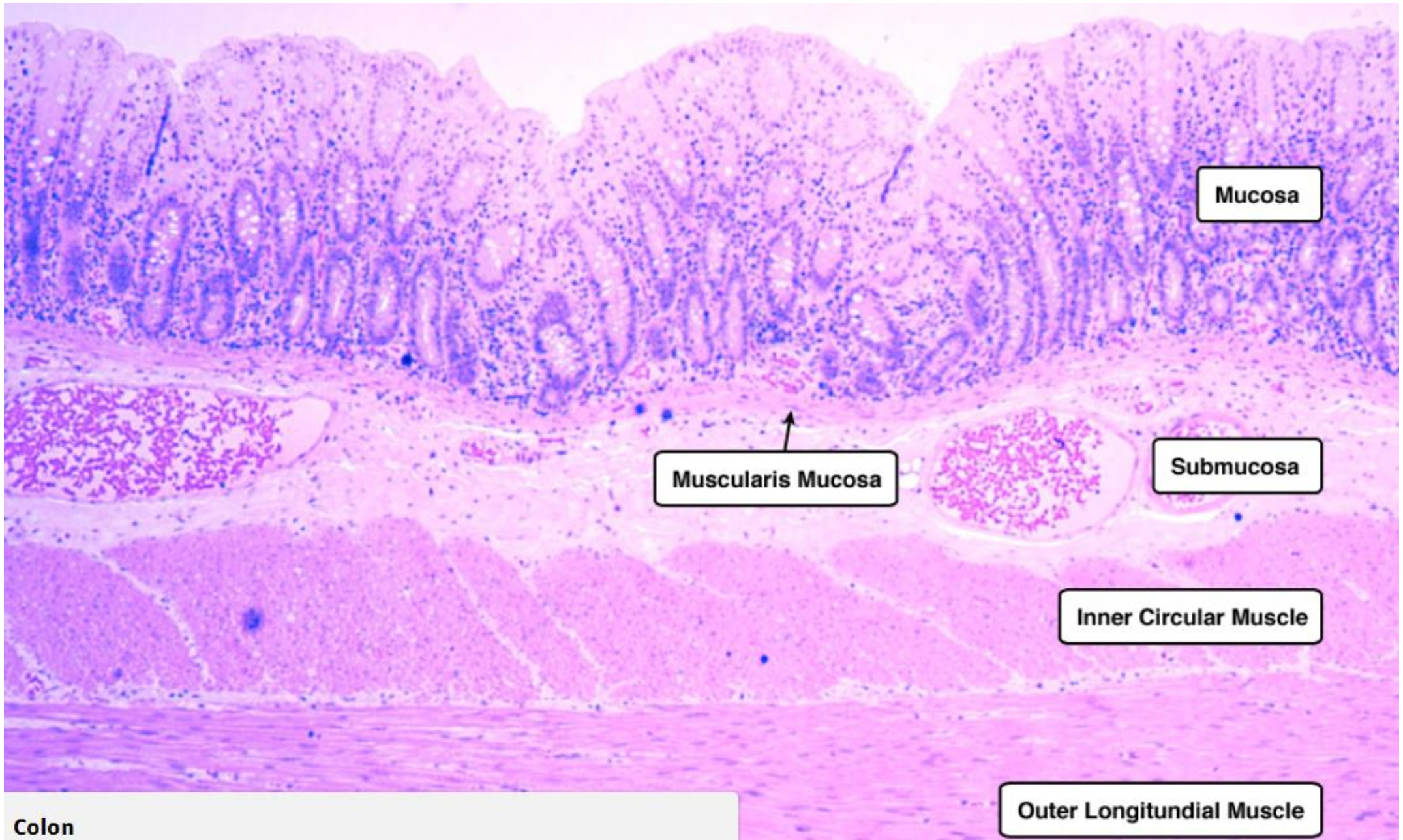


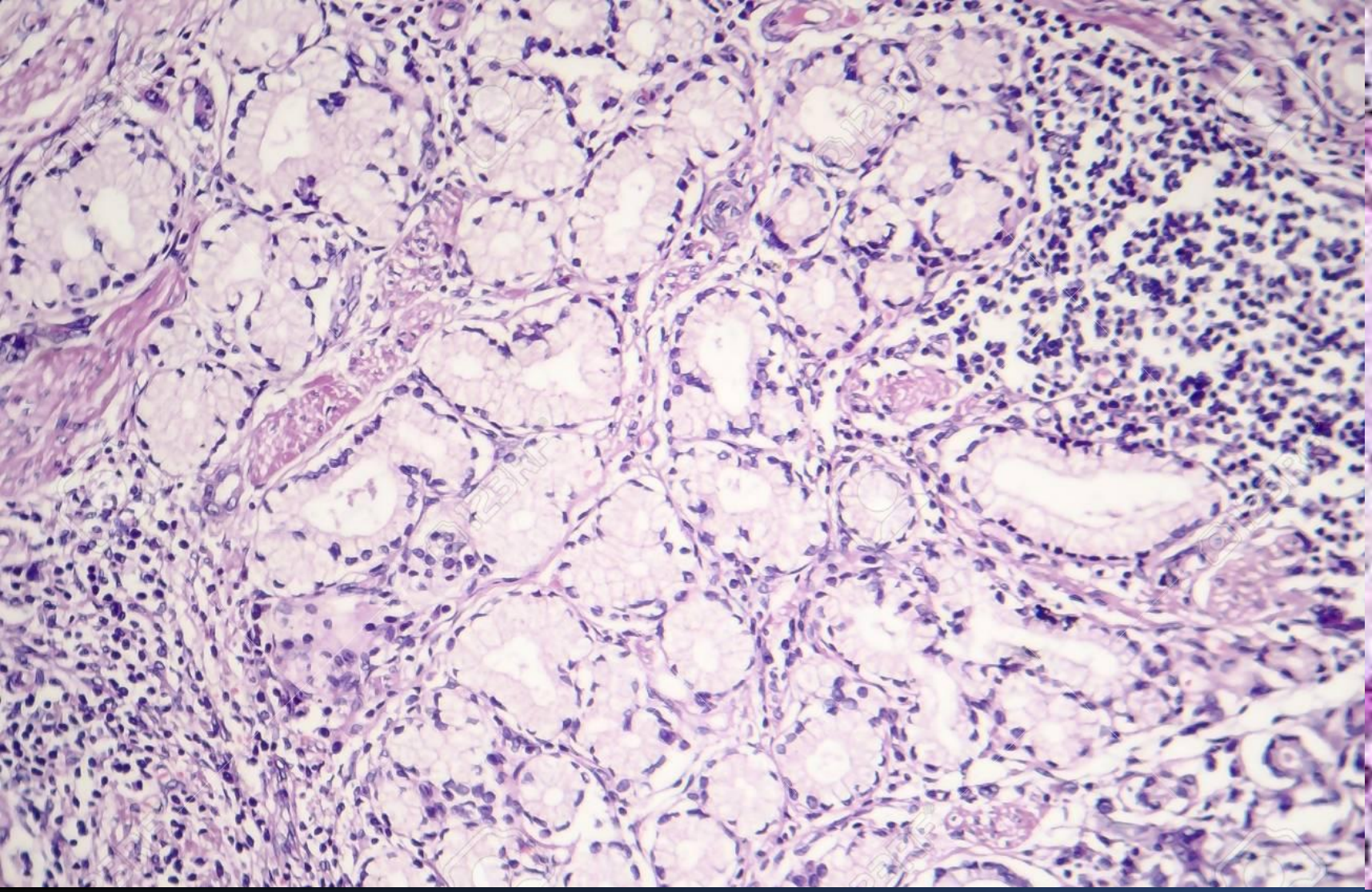
Intestine (Villus)

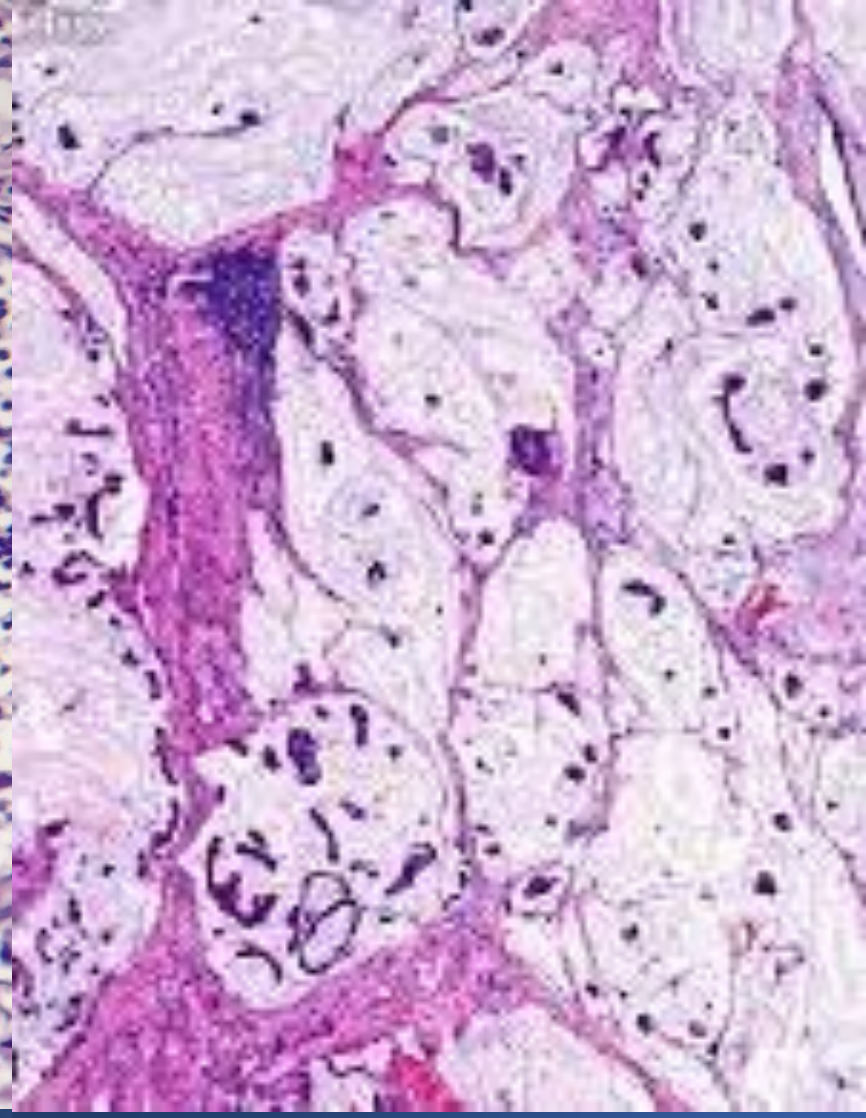


Intestine (Paneth cells)

Normal microscopic picture (Colon)

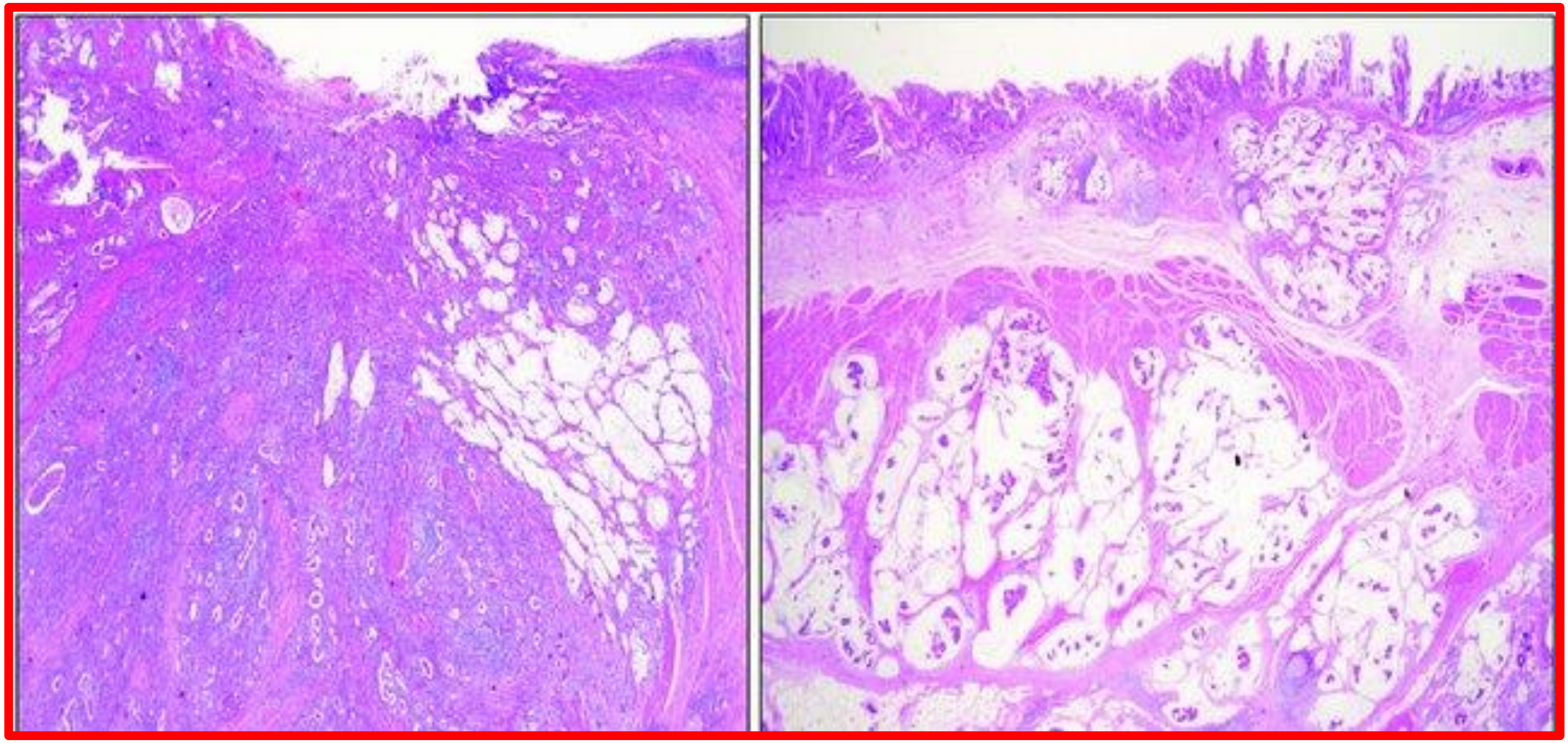






Mucinous adenocarcinoma of the stomach.
Clusters and scattered tumor cells floating in the abundant extracellular mucin pools

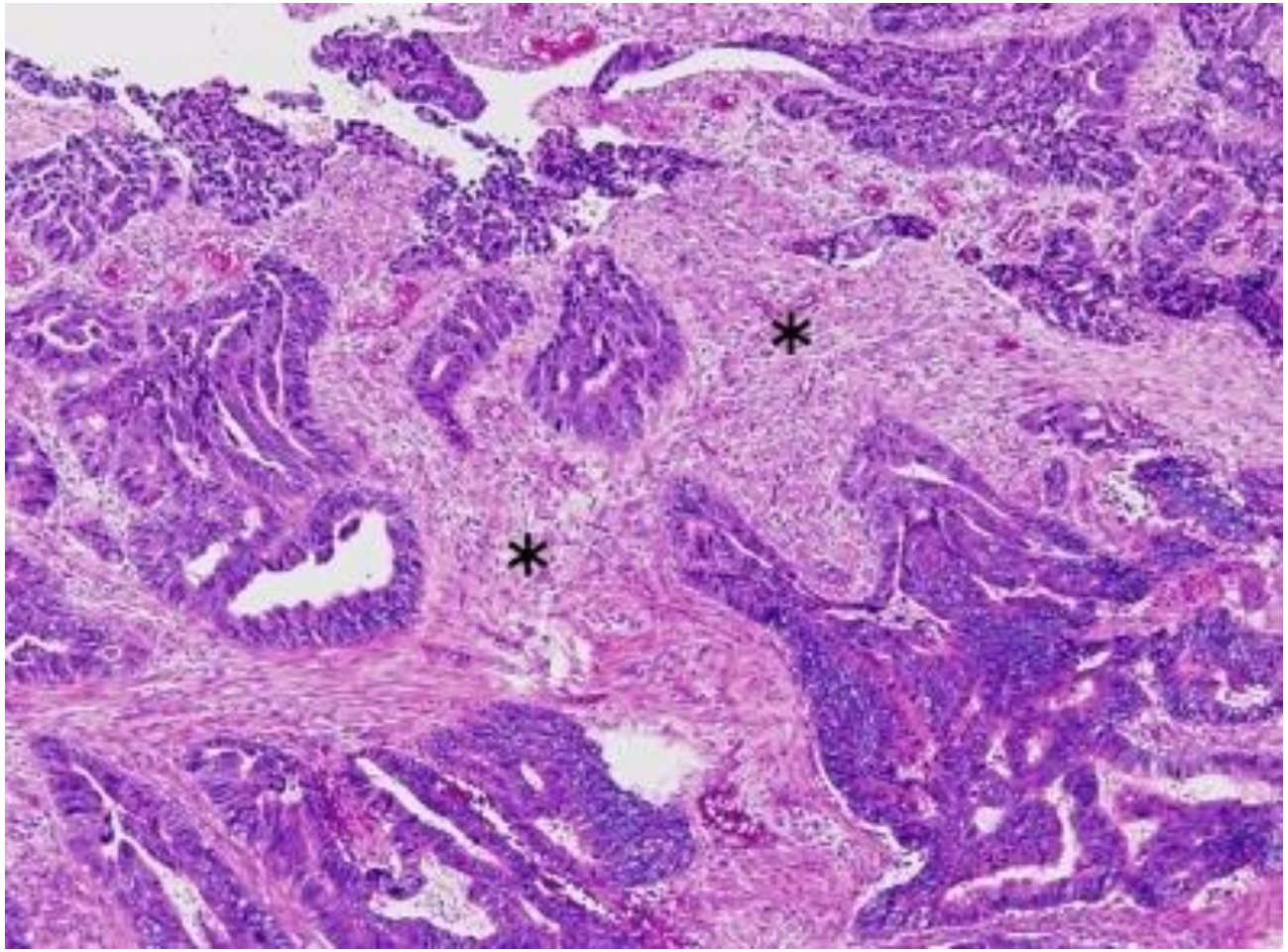
Mucinous carcinoma of the stomach



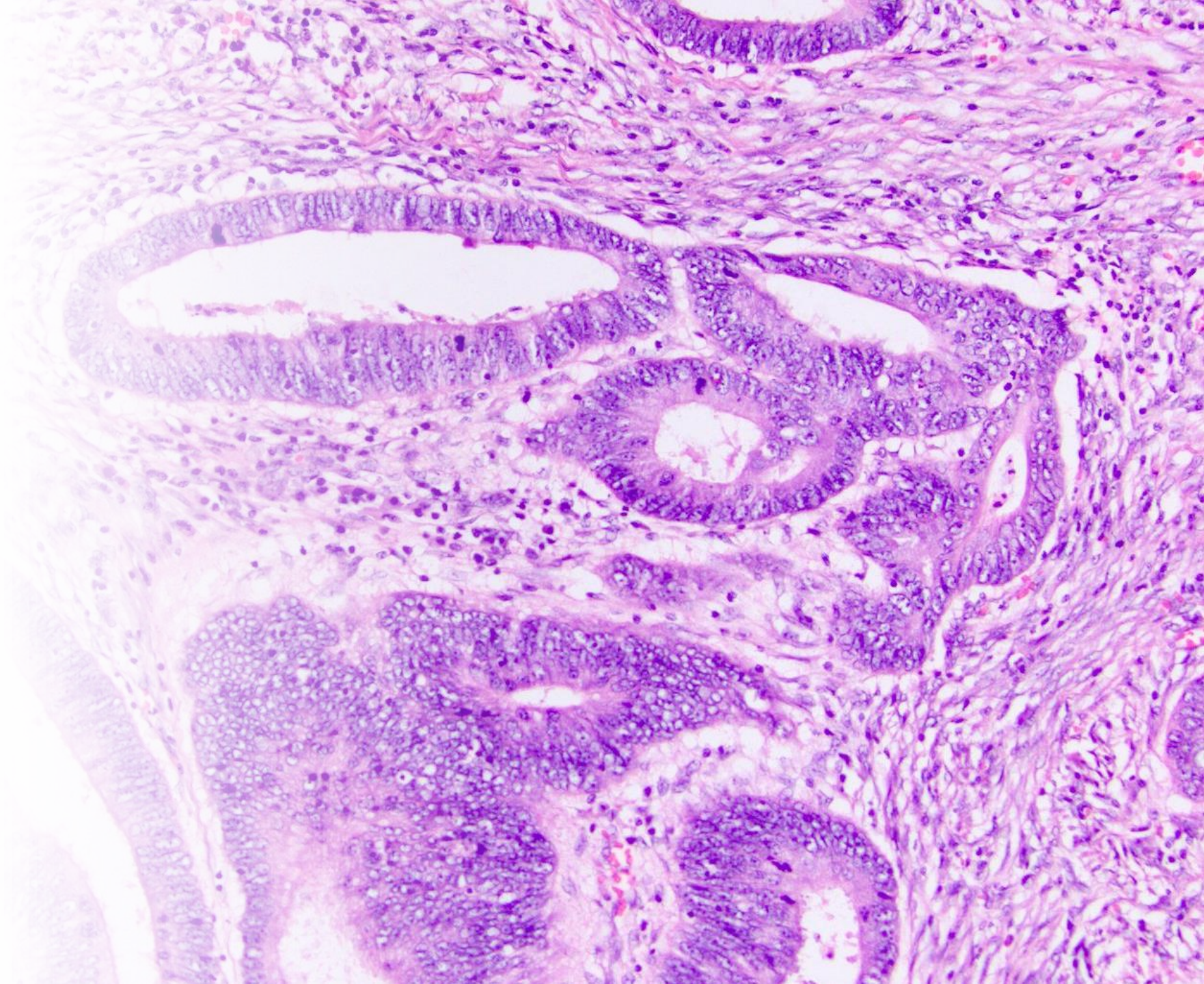
Extracellular-mucin-pools

colon adenocarcinoma

(nuclear pleomorphism and hyperchromasia)

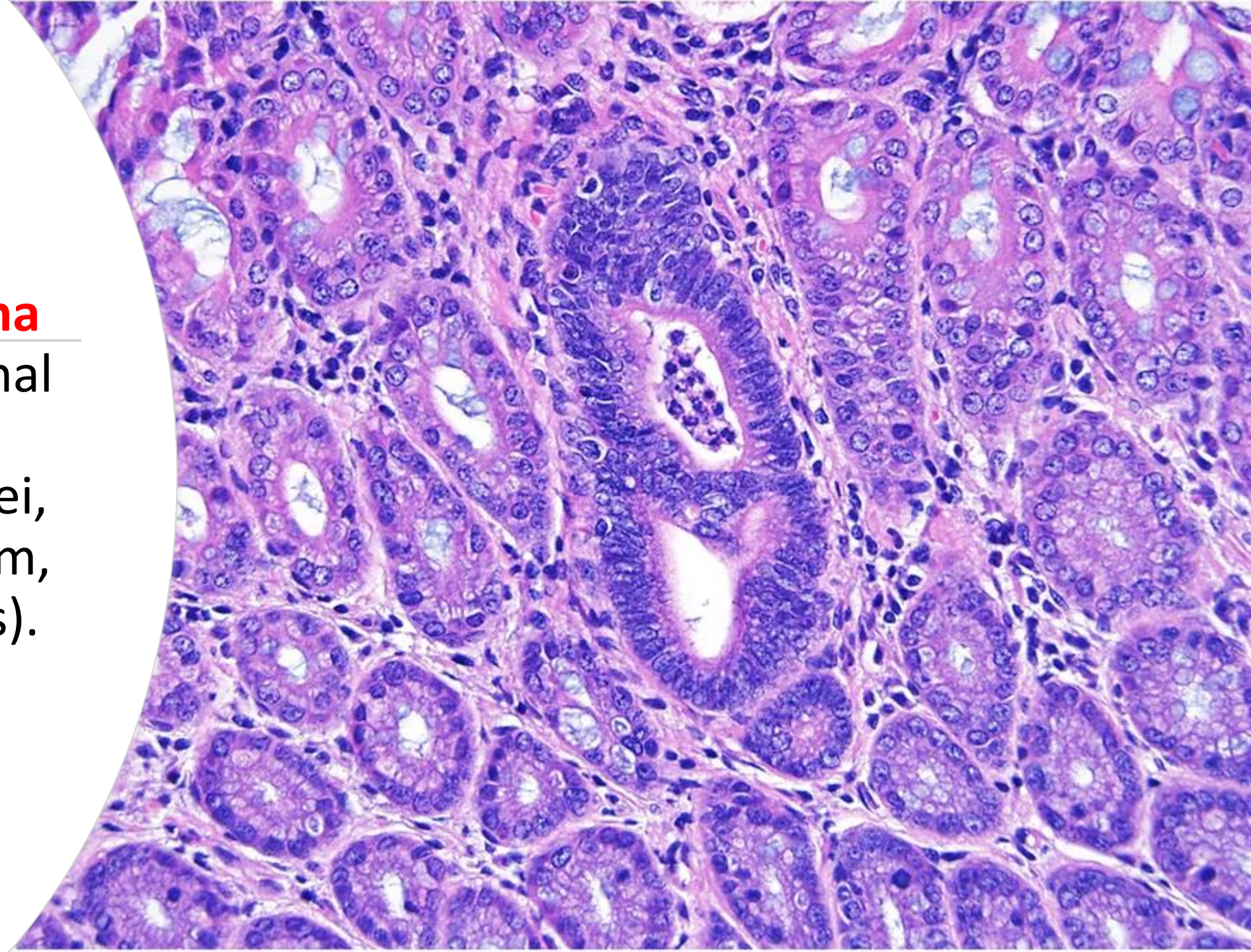


- **Colon adenocarcinoma** showing intestinal type features (pencillate nuclei, purple cytoplasm, rounded glands)



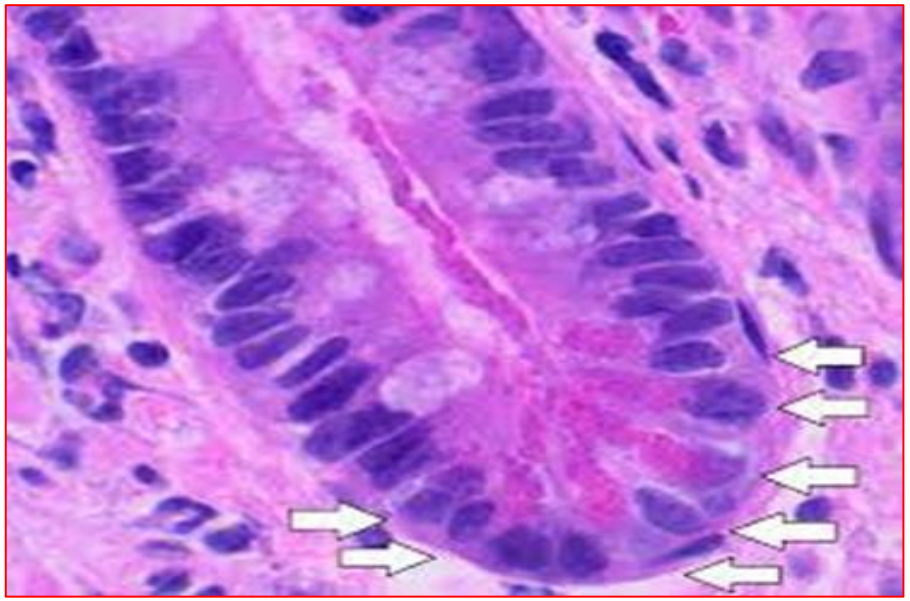
- **Colonic adenocarcinoma**

showing intestinal type features (pencillate nuclei, purple cytoplasm, rounded glands).



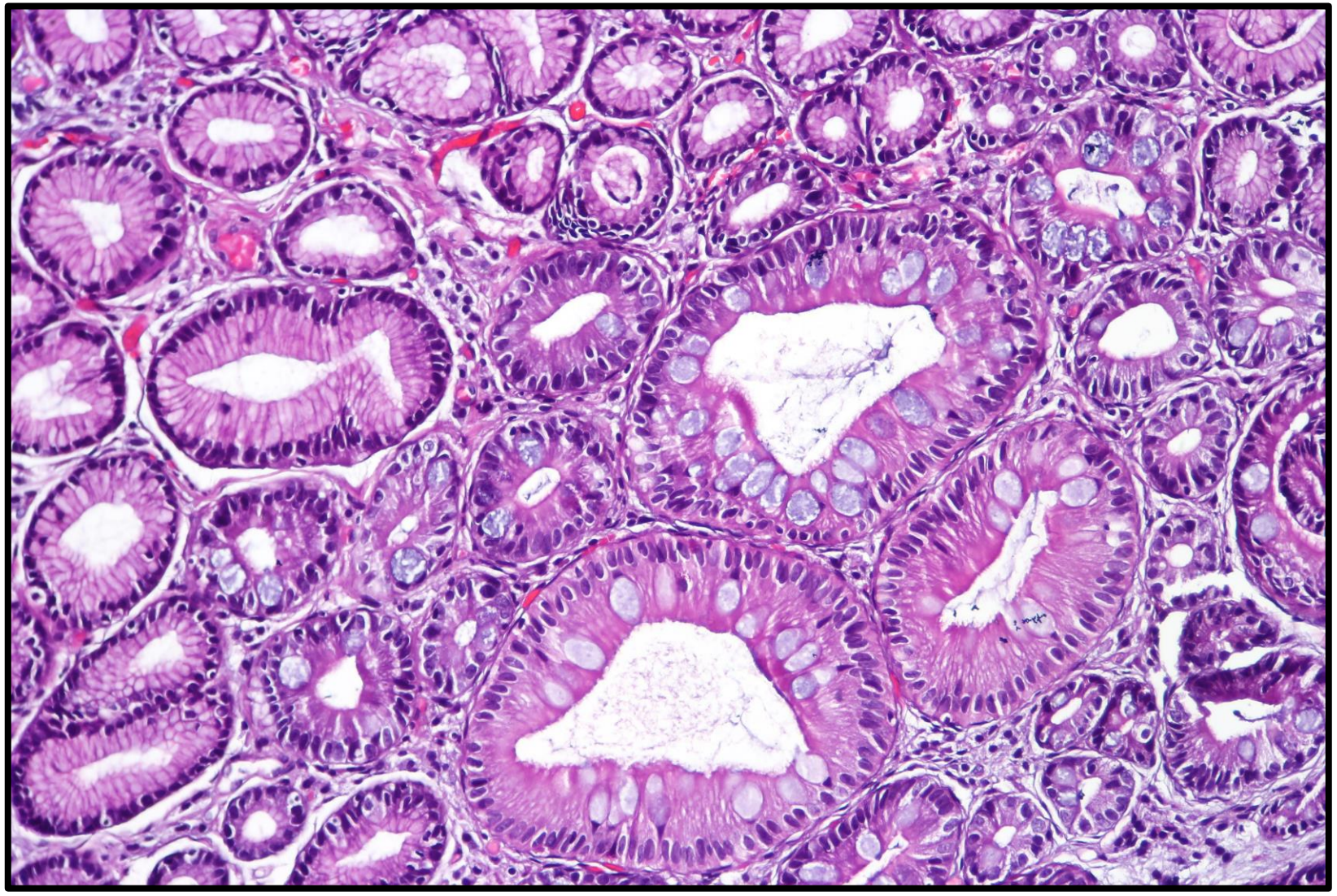
Intestinal metaplasia is characterized by morphological similarity to the enterocytes, Paneth cells, and goblet cells; it shows characteristics of absorbing mucosa, the presence of a striated border, and brush border structures.

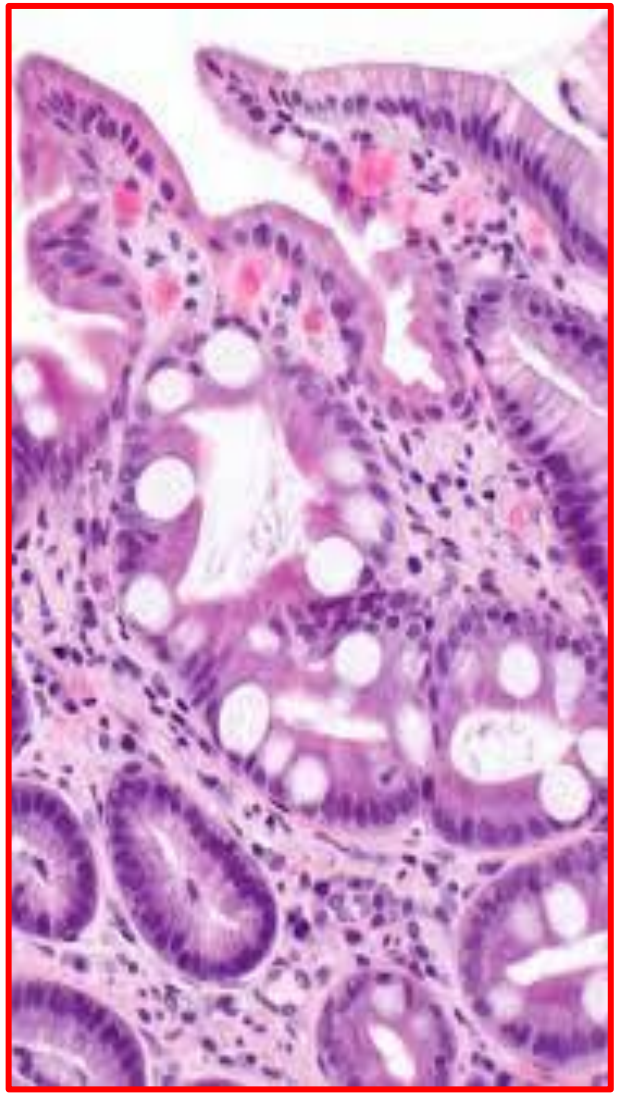
Goblet cells



Paneth cells

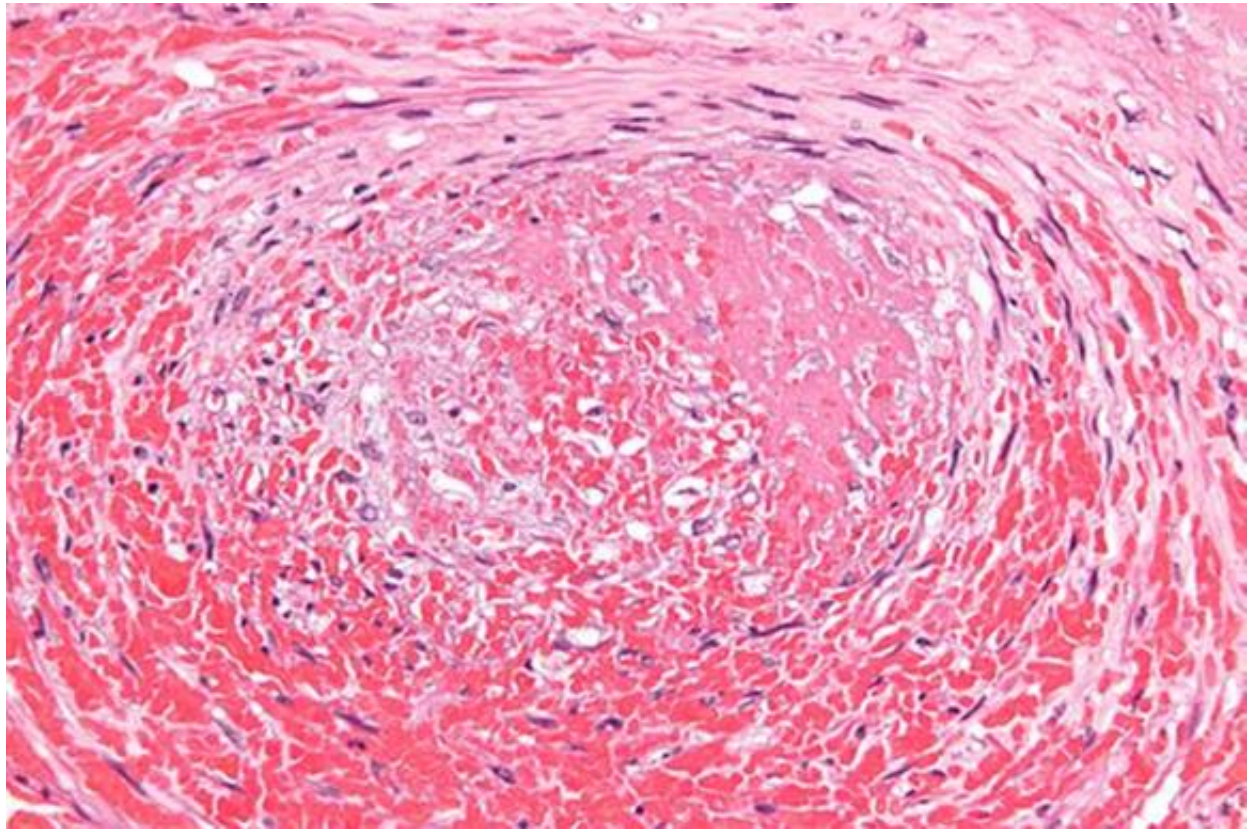
Intestinal metaplasia

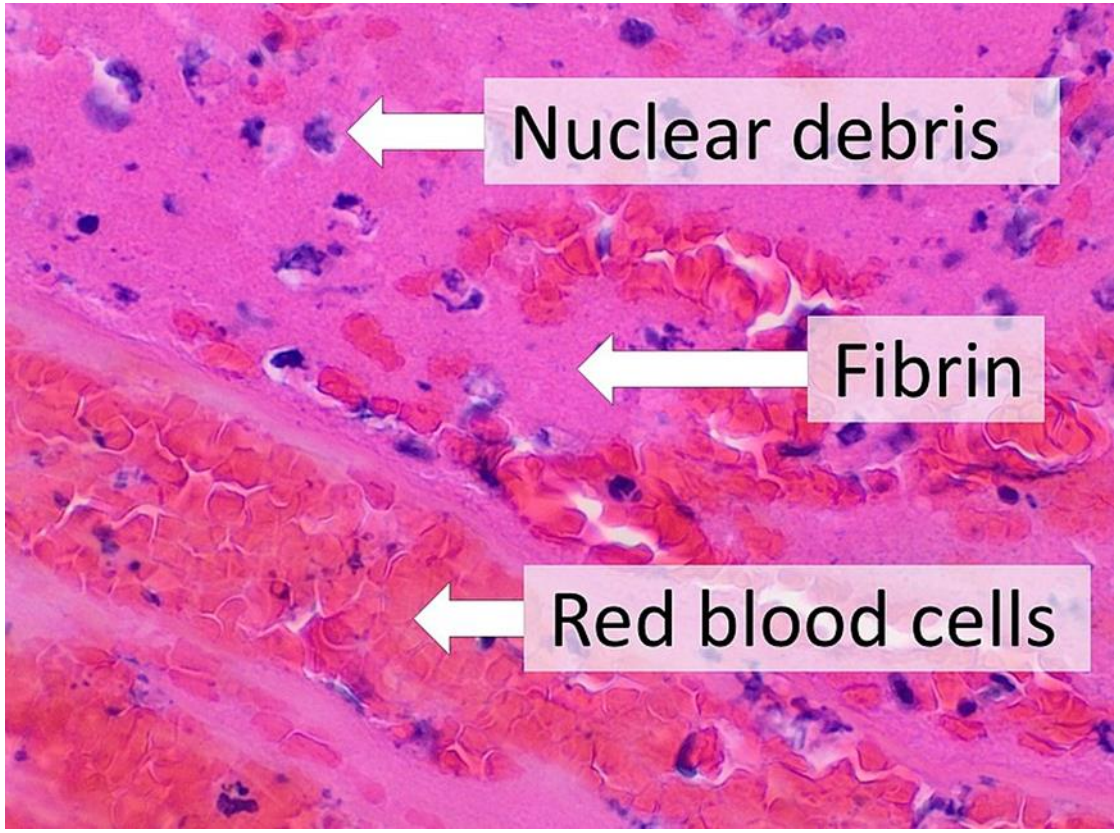




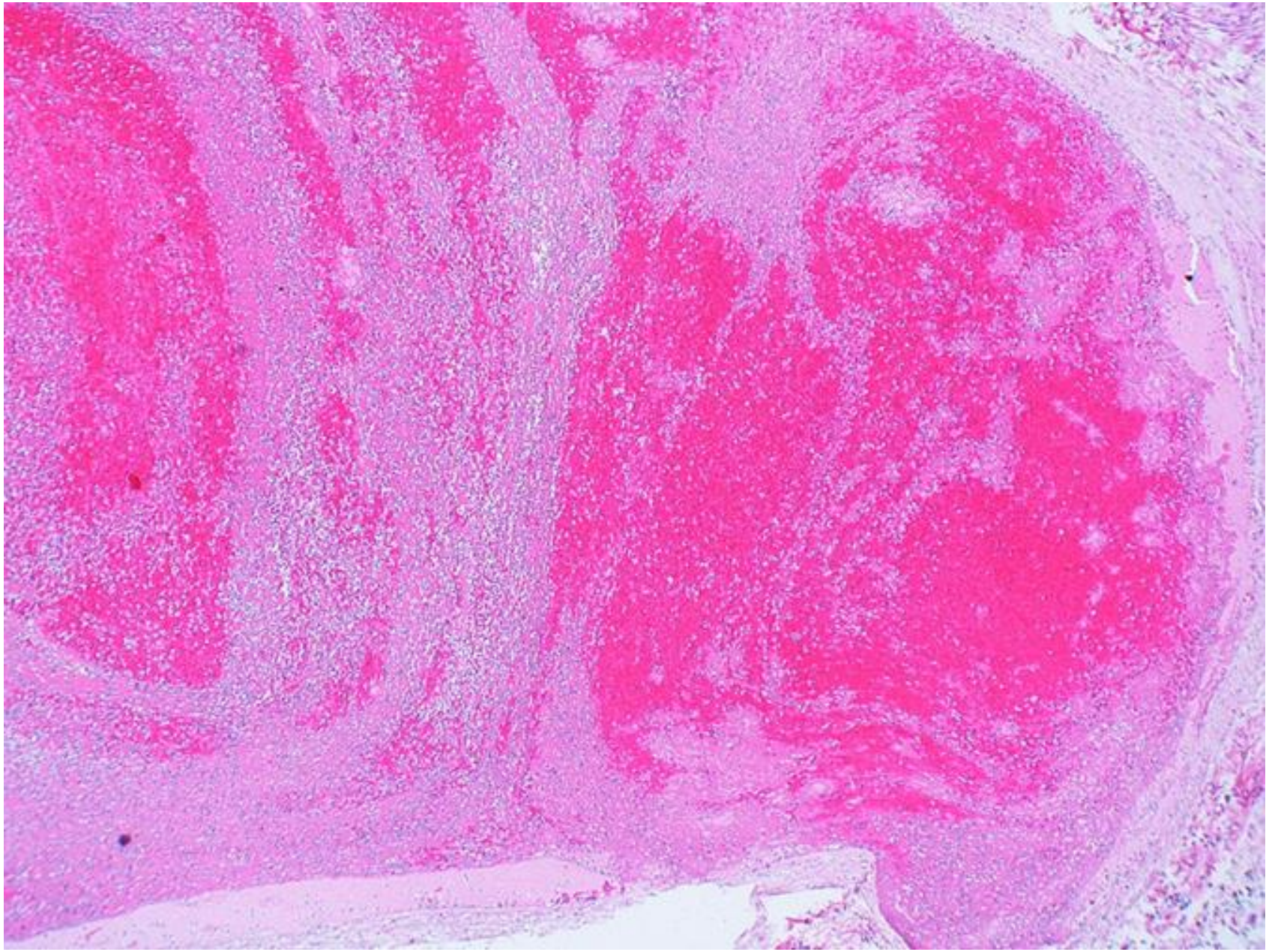
Thrombus

Composition of a fresh thrombus at microscopy, showing nuclear debris in a background of fibrin and red blood cells.





Thrombus microscopic picture may have layers, with lighter layers of platelets and fibrin, and darker layers of red blood cells.




Thank
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