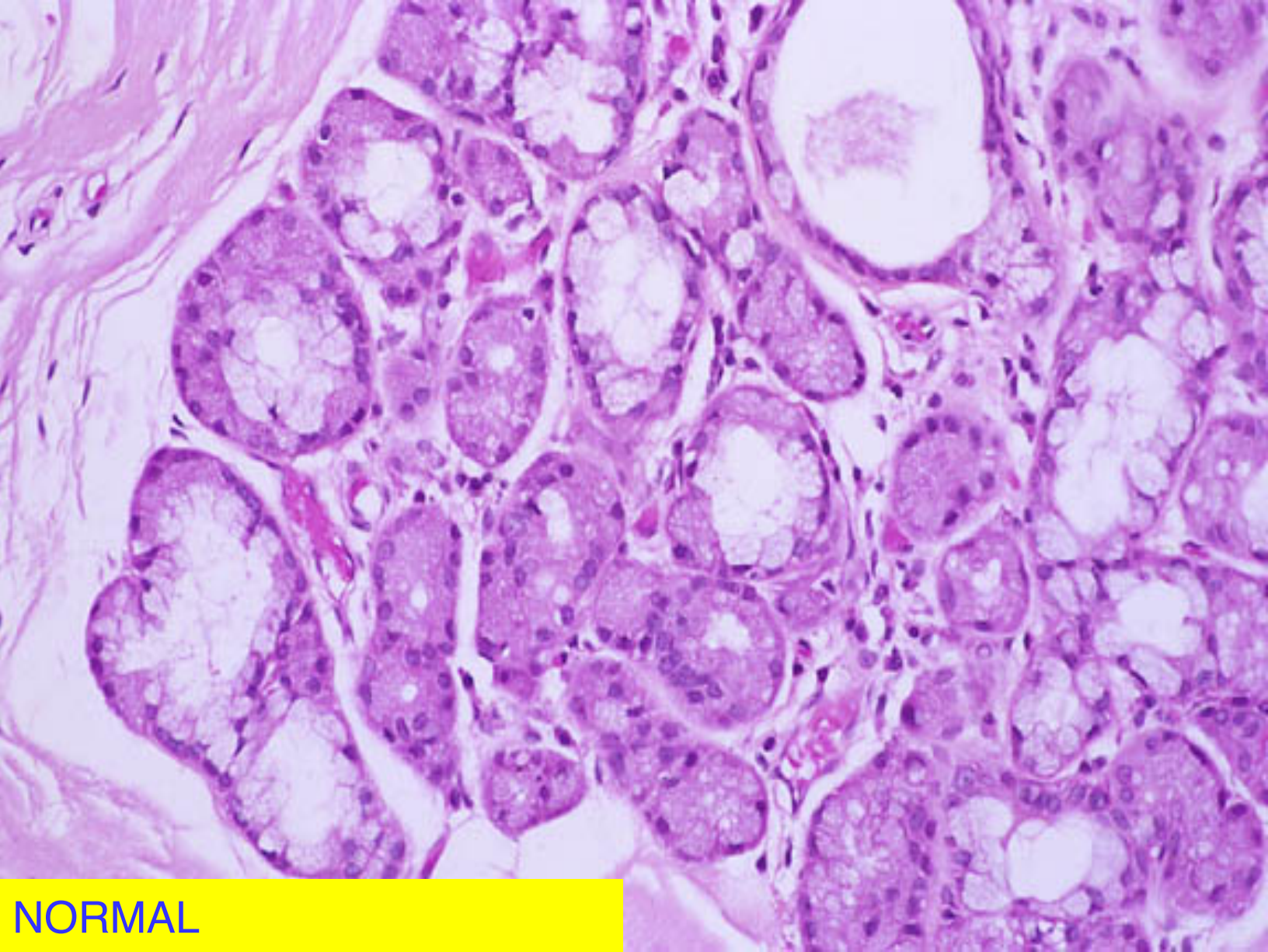
GNT Block
2018
Pathology Practical

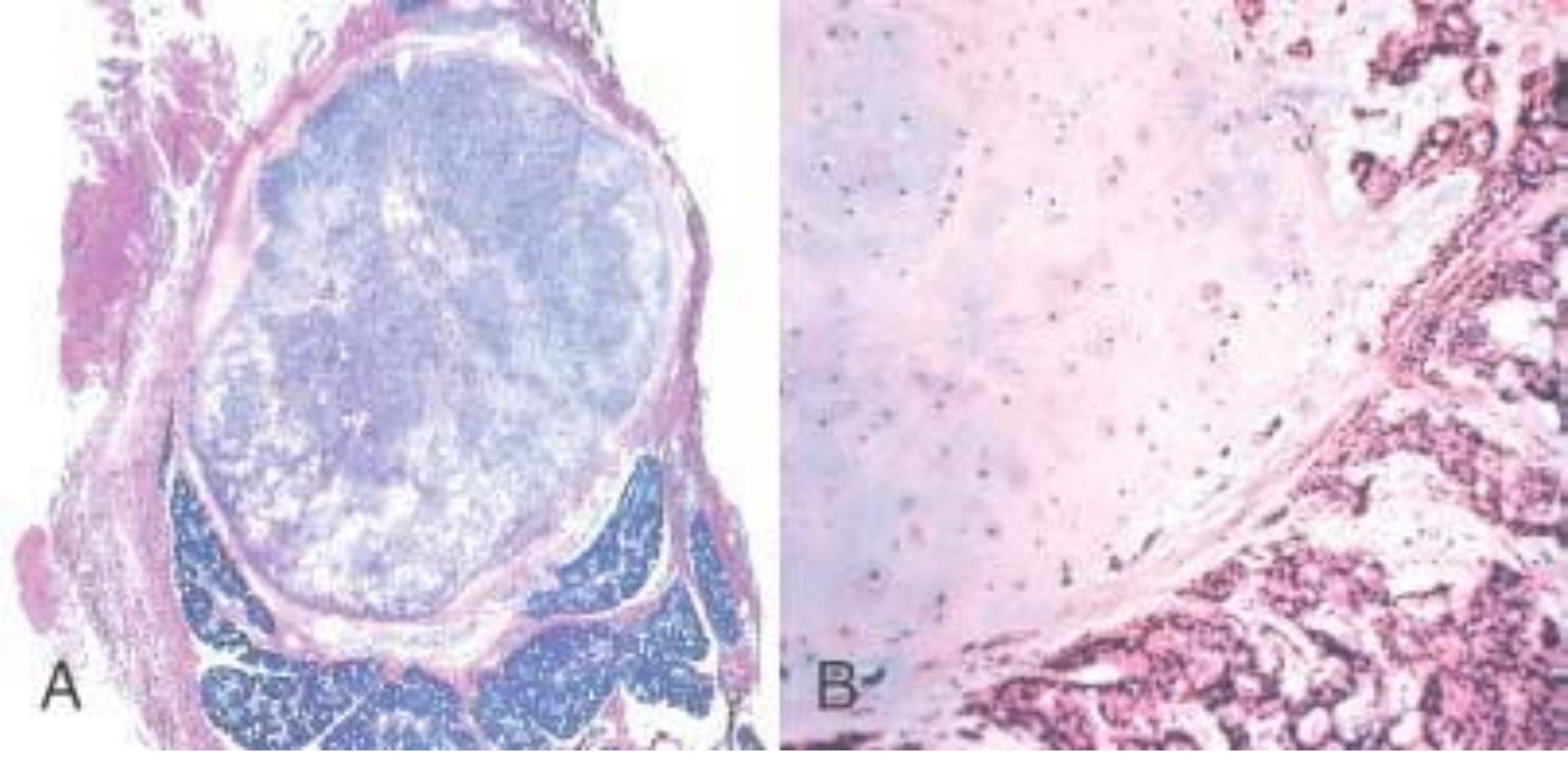
Digestive system block- Practical 1

SALIVARY GLAND



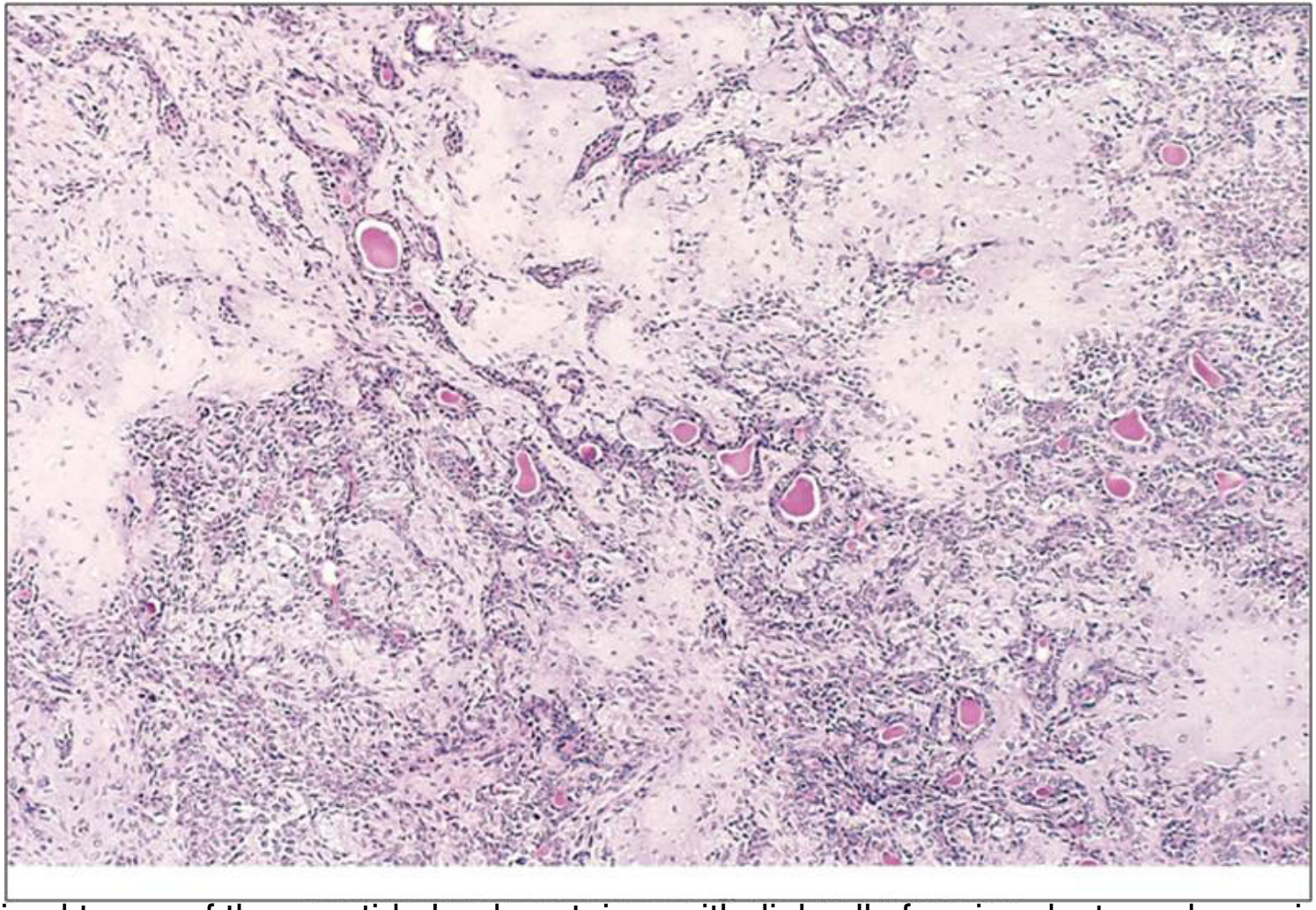
NORMAL

PAROTID



PLEOMORPHIC ADENOMA

i.e., MIXED TUMOR



Mixed tumor of the parotid gland contains epithelial cells forming ducts and myxoid stroma that resembles cartilage.

Pleomorphic adenoma of the salivary gland:

Section shows an incomplete fibrous capsule separating the tumour from normal salivary gland:

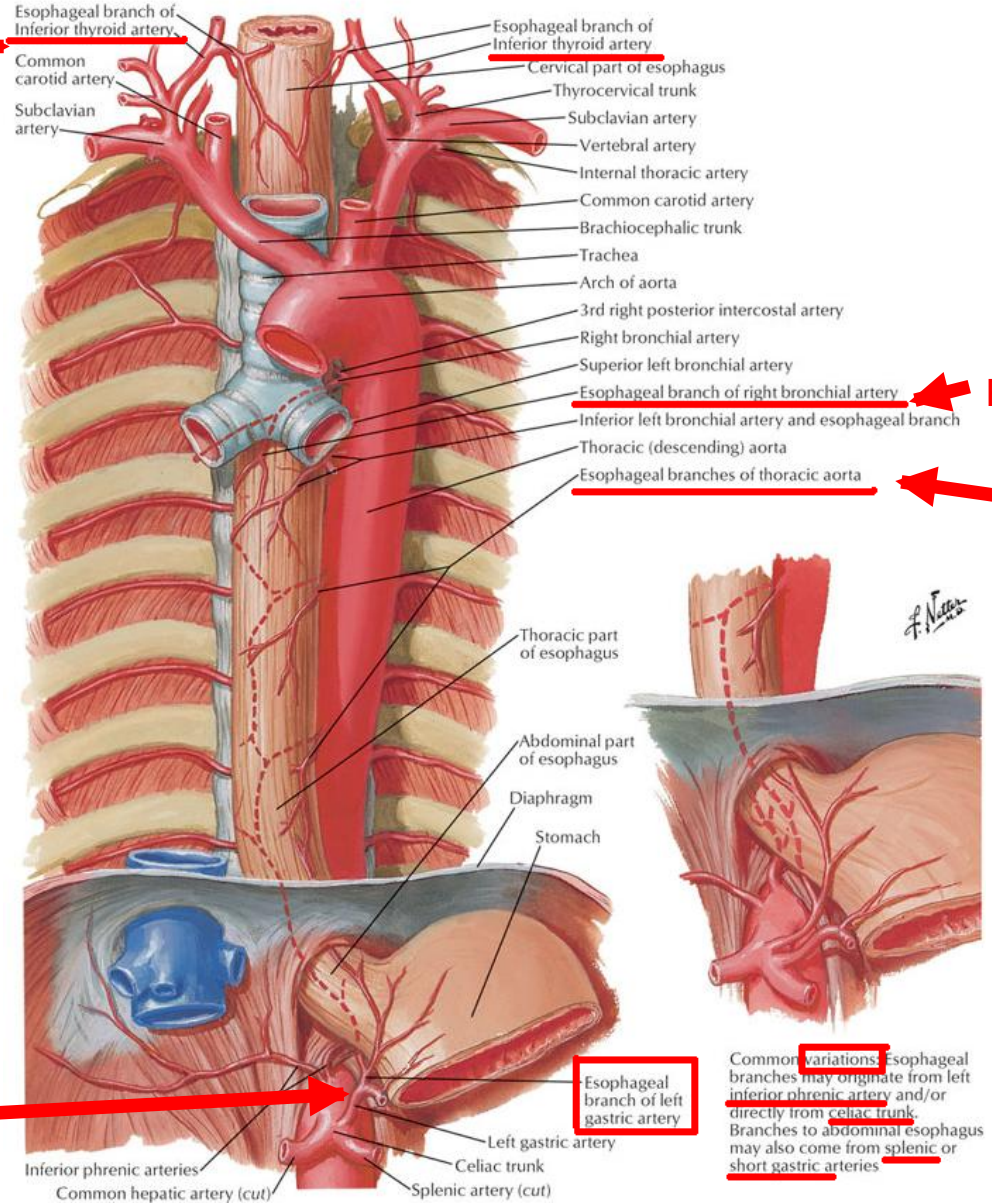
Tumour shows mixed cellular components like epithelial, myoepithelial, chondriod and myxoid elements.

Epithelial areas shows small ducts, acini and strands or sheets of cells.

Myxoid areas are formed of loose myxomatous tissue and chondriod areas consists of pale blue matrix.

Esophagus

Review of normal anatomy and histology



Inf. Thyroid Arts.

R. Bronch. Art.

Thoracic. Aor.

Left Gastric Art.

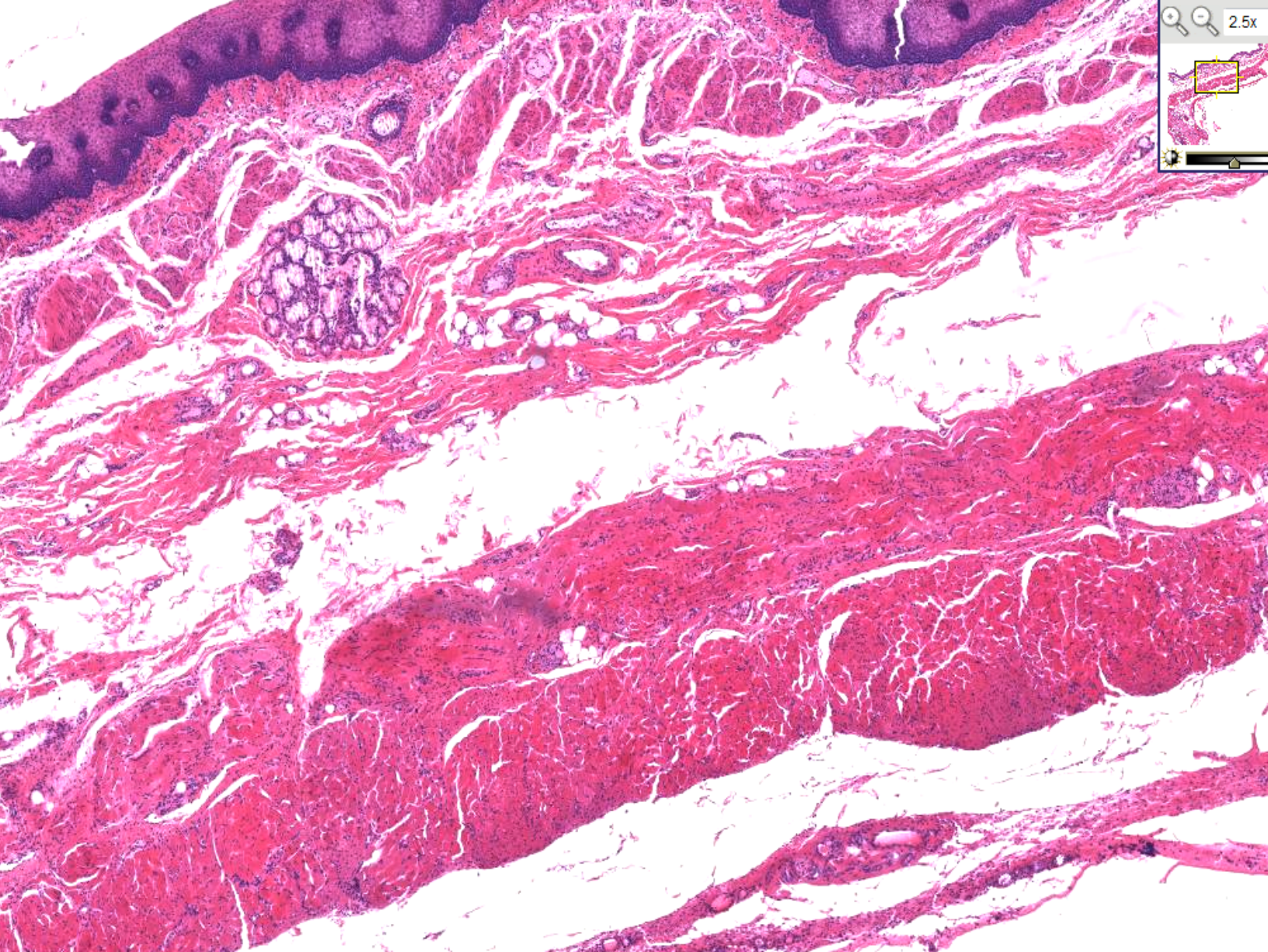
Variations:

Inf, Phrenic

Celiac

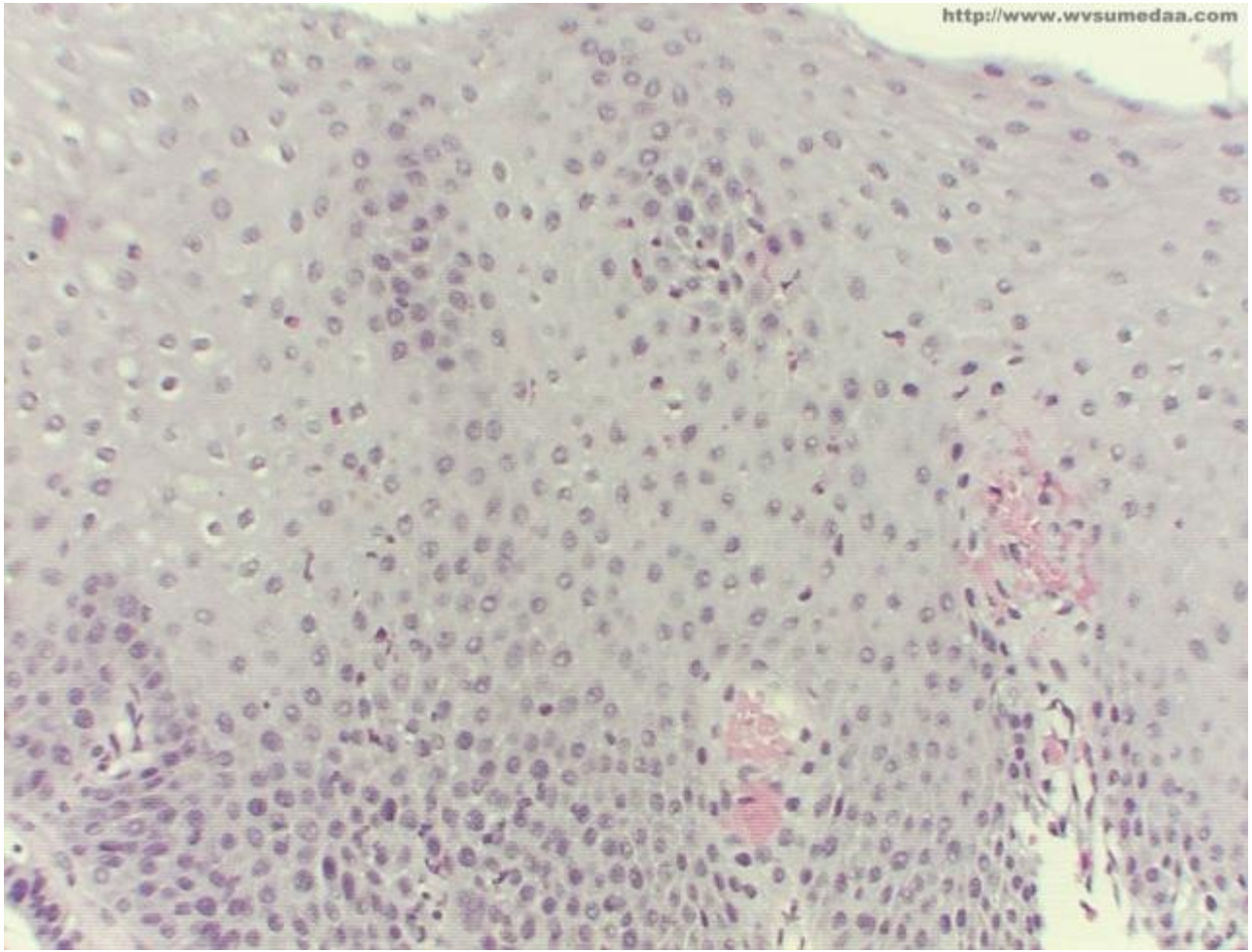
Splenic

Short Gast.


2.5x

Gross and histopathology

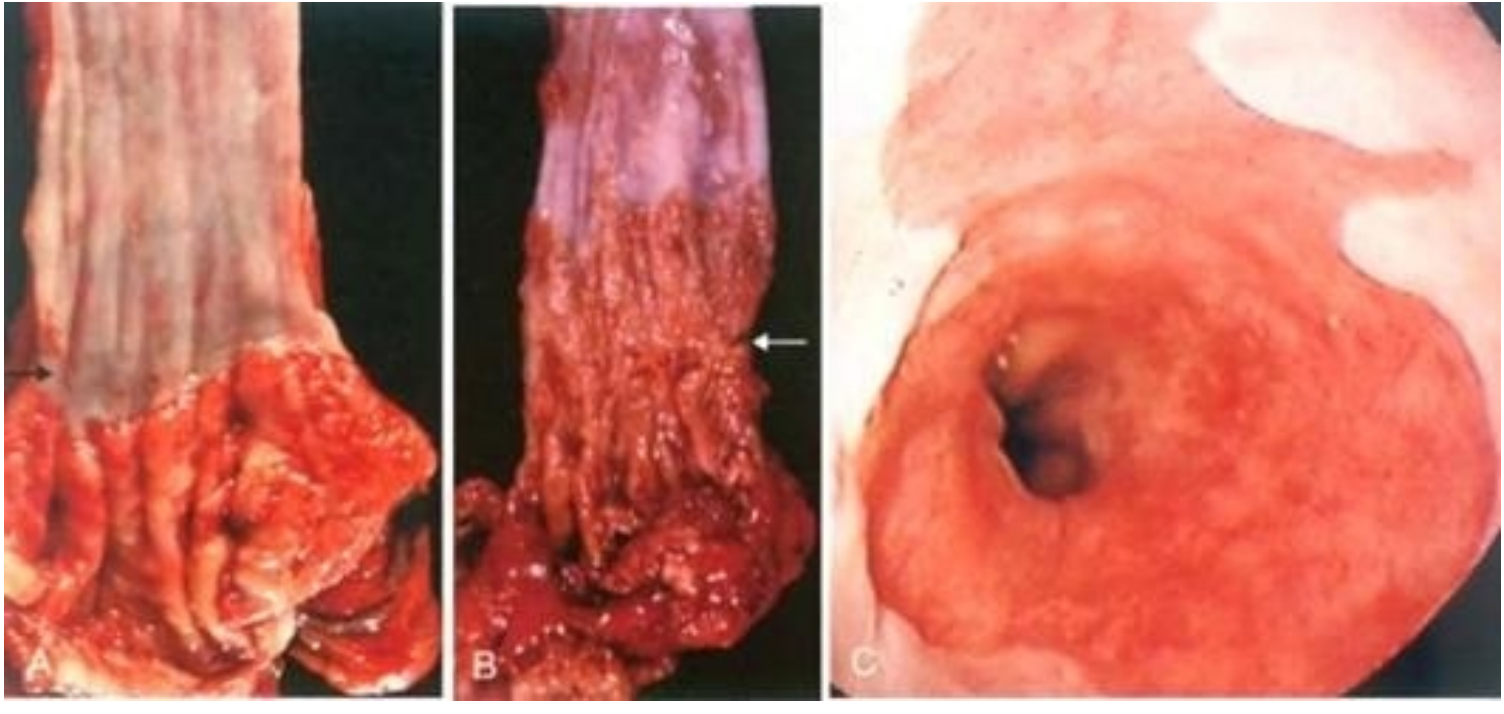
REFLUX/GERD

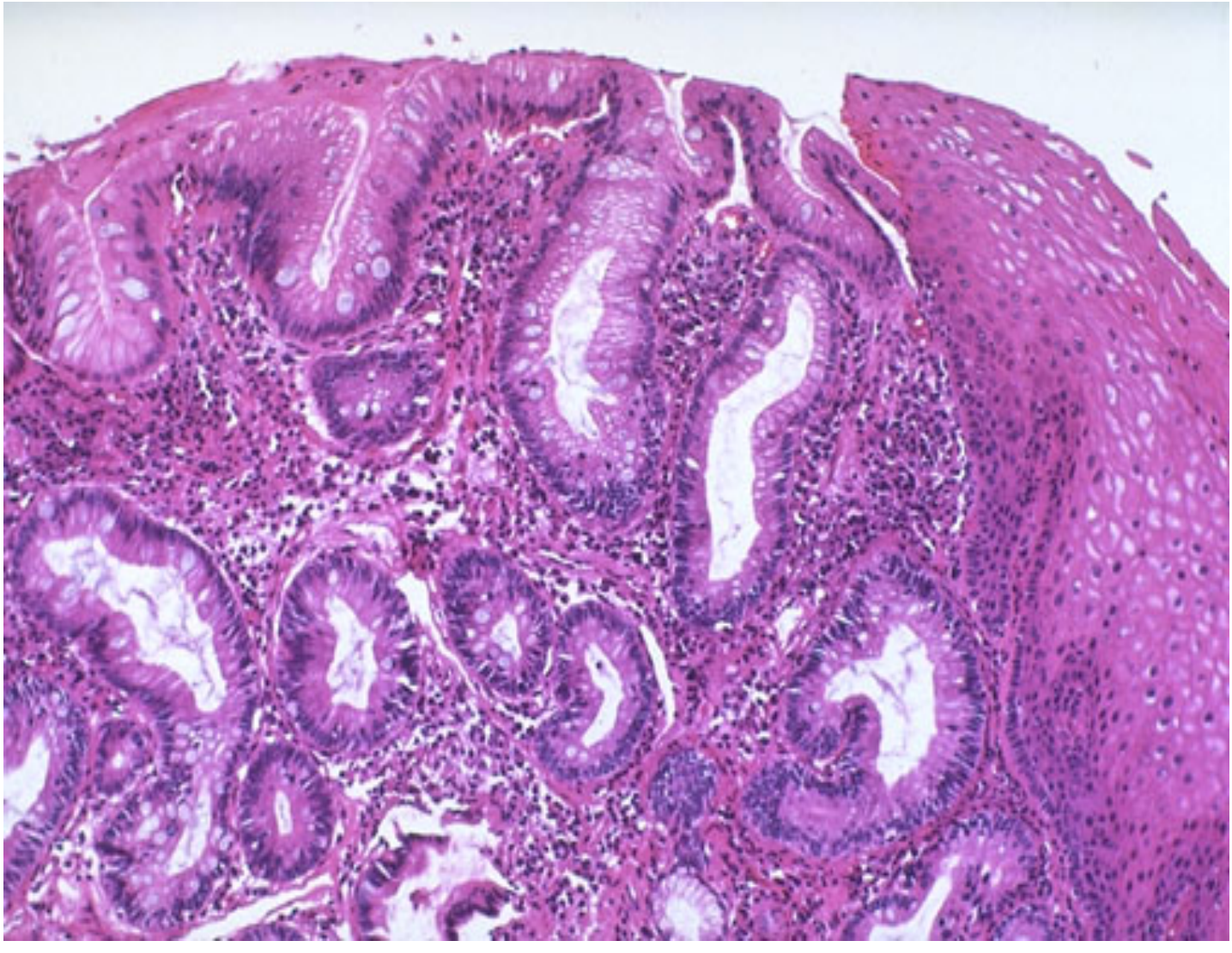


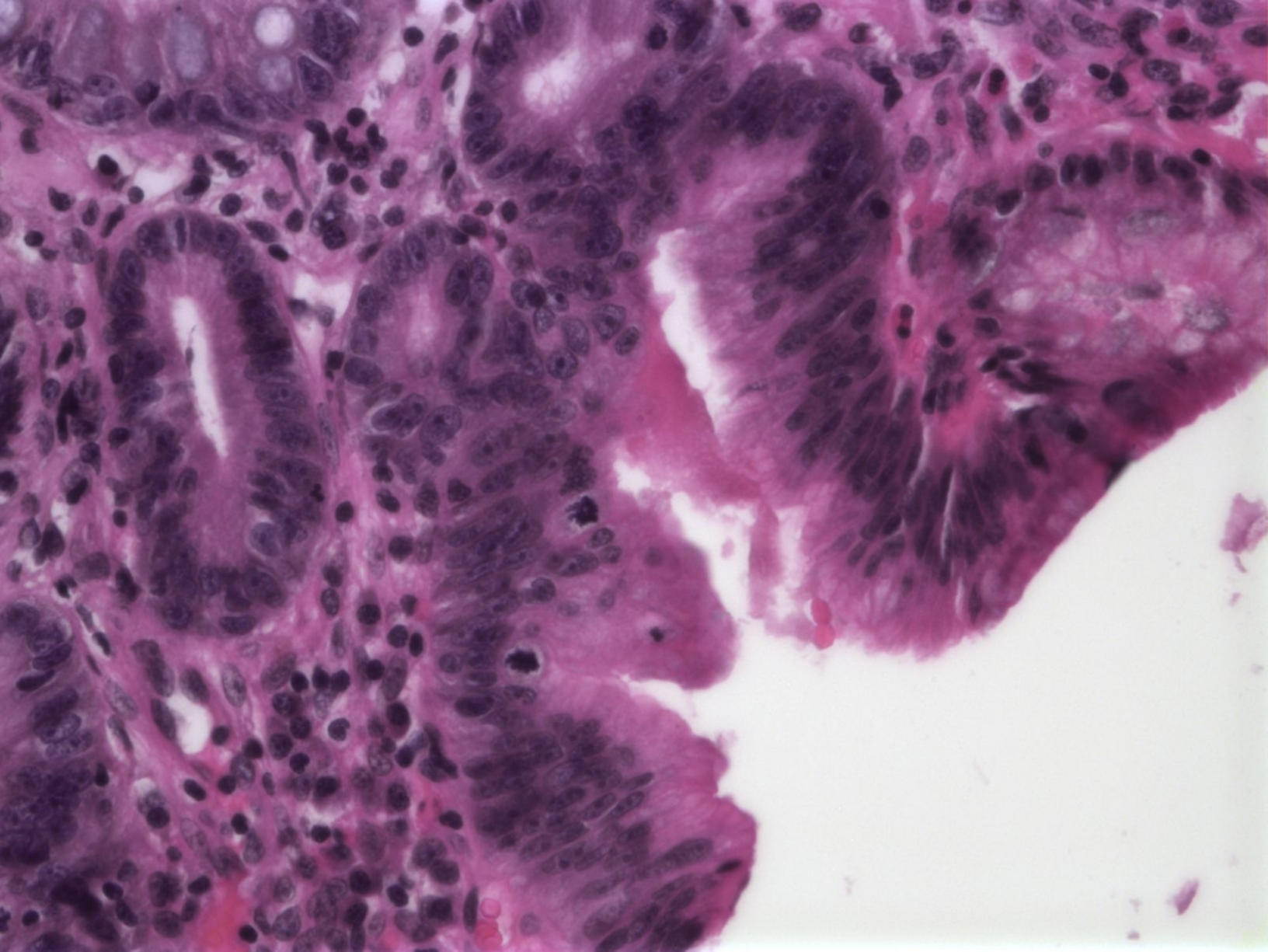
REFLUX/GERD

- Inflammatory Cells
  - –Eosinophils
  - –Neutrophils
  - –Lymphocytes
- Basal zone hyperplasia
- Lamina Propria papillae elongated and congested

BARRETT'S ESOPHAGUS



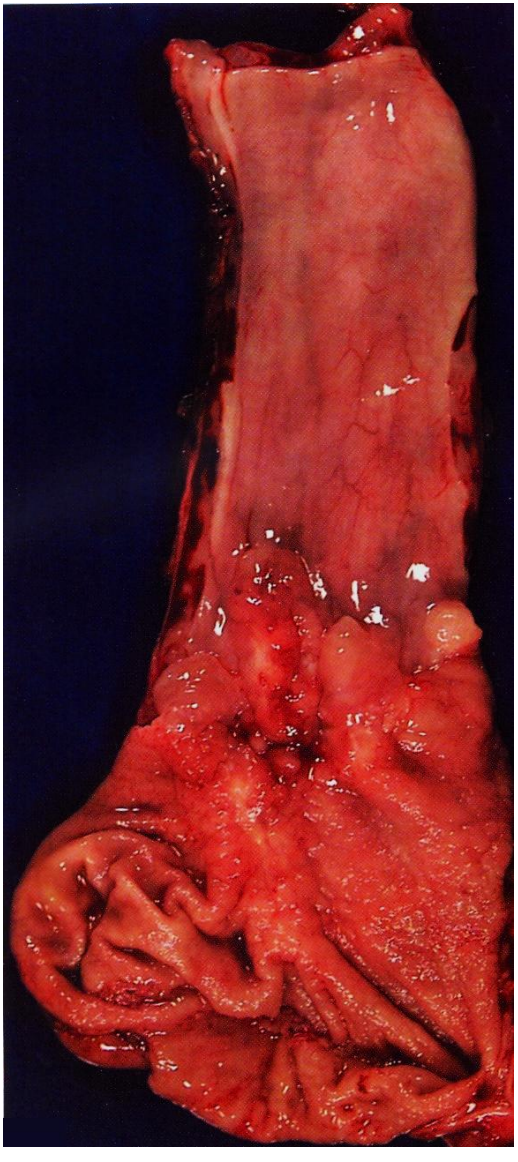




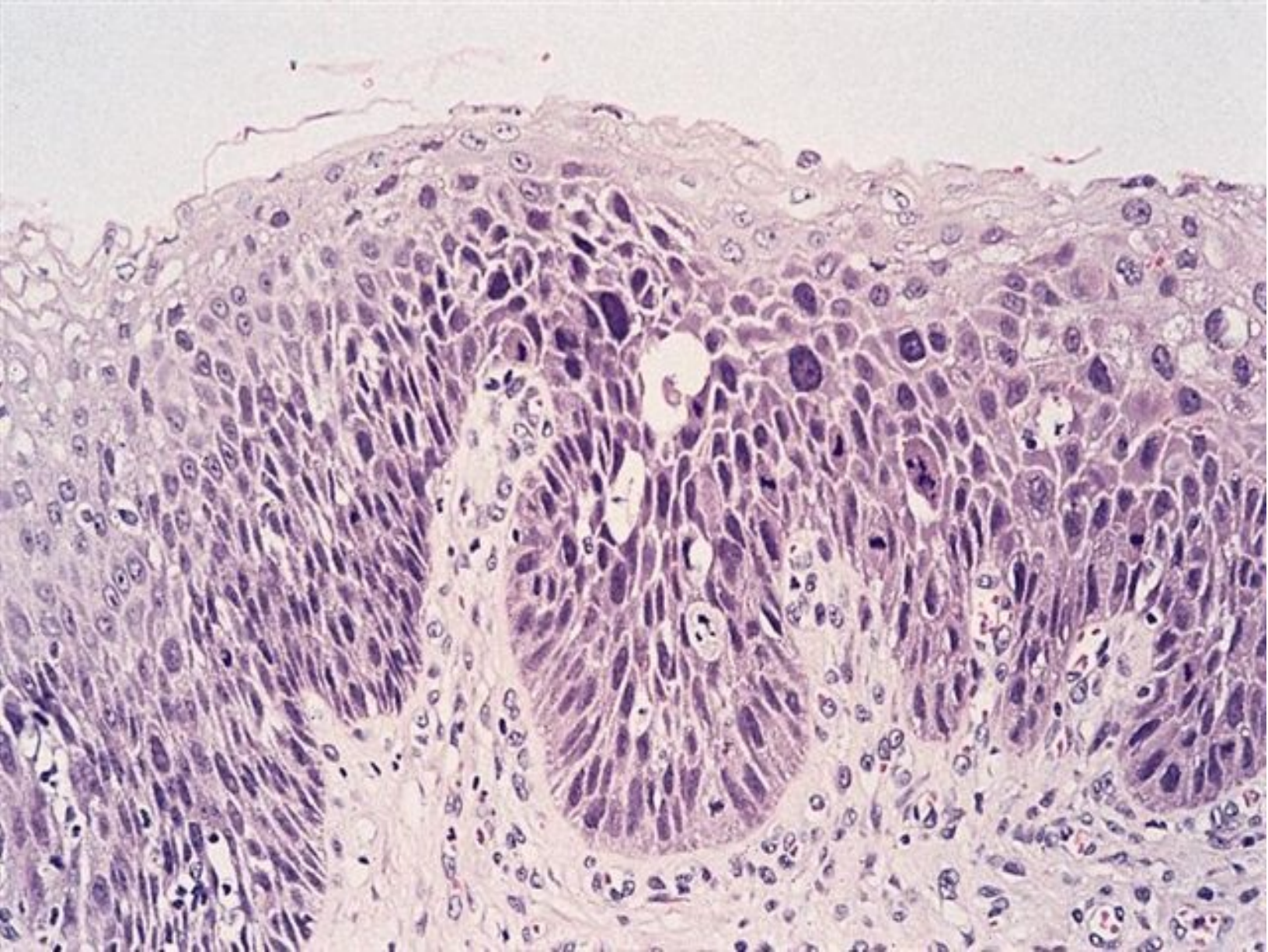
BARRETT'S ESOPHAGUS

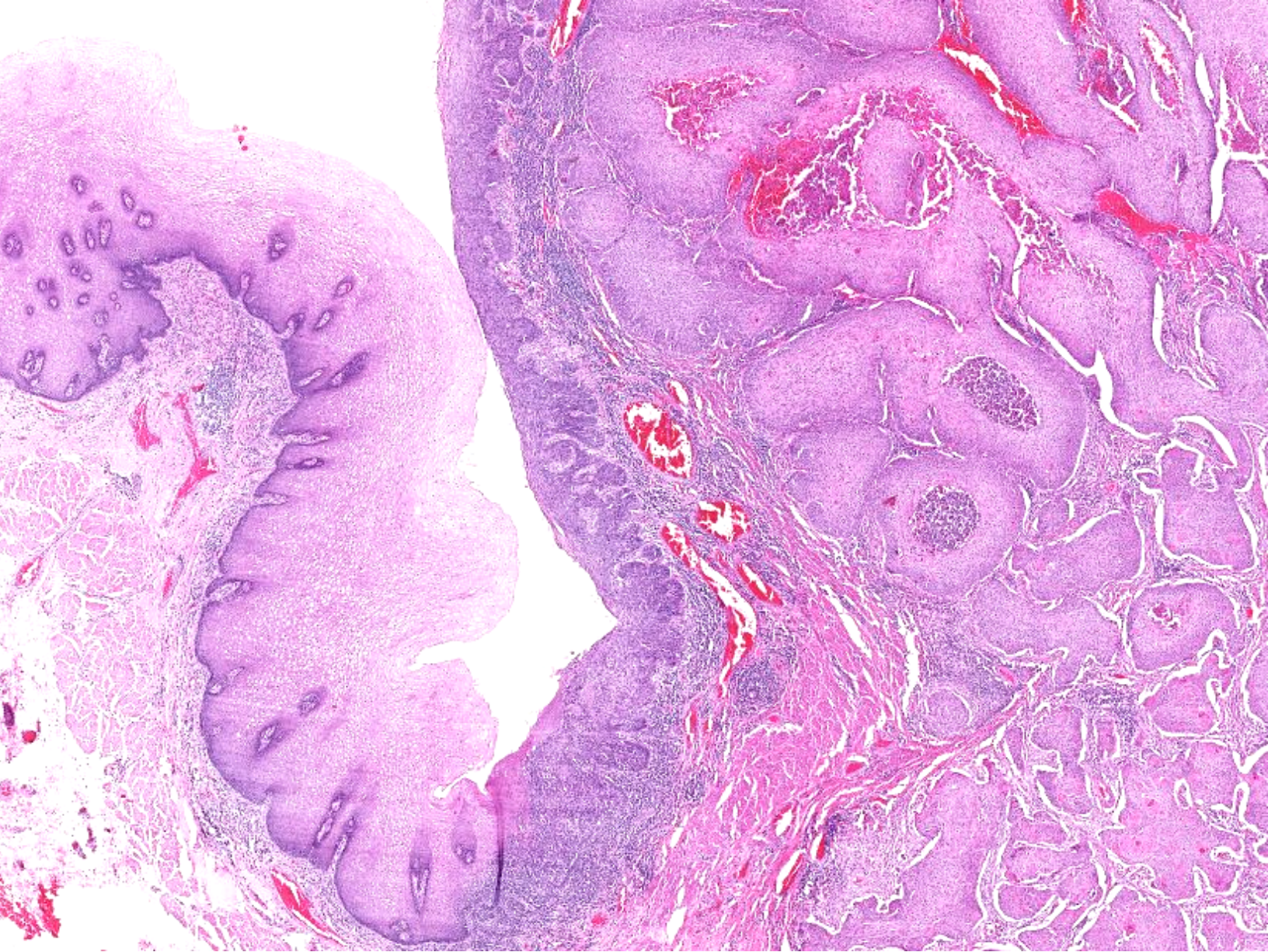
- INTESTINALIZED (GASTRICIZED) mucosa is AT RISK for glandular dysplasia.
- Searching for dysplasia when BARRETT's is present is of utmost importance
- MOST/ALL adenocarcinomas arising in the esophagus arise from previously existing BARRETT's

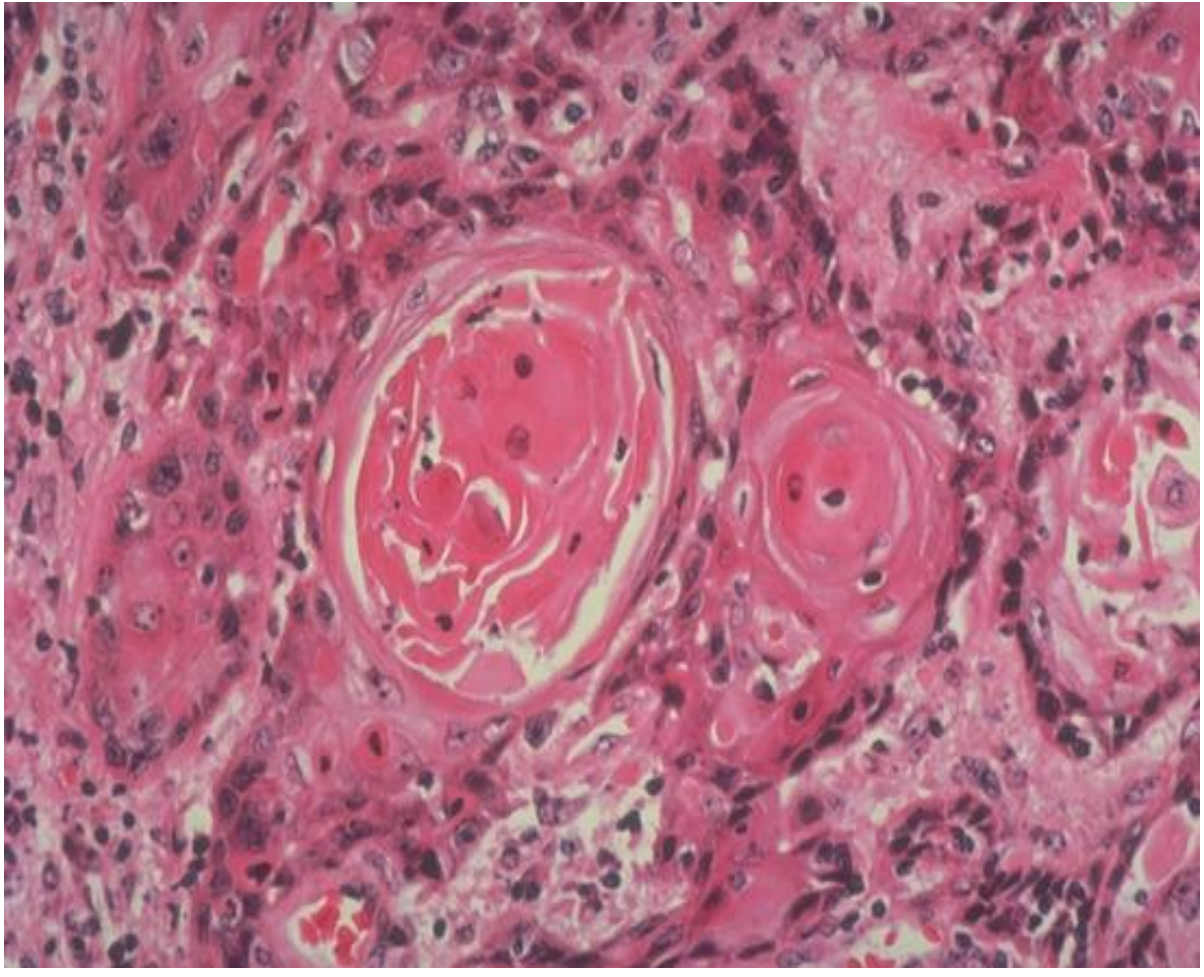
Carcinoma of the esophagus



Esophageal squamous cell carcinoma is associated with alcohol and tobacco use, poverty, caustic esophageal injury, achalasia, tylosis, and Plummer-Vinson syndrome.

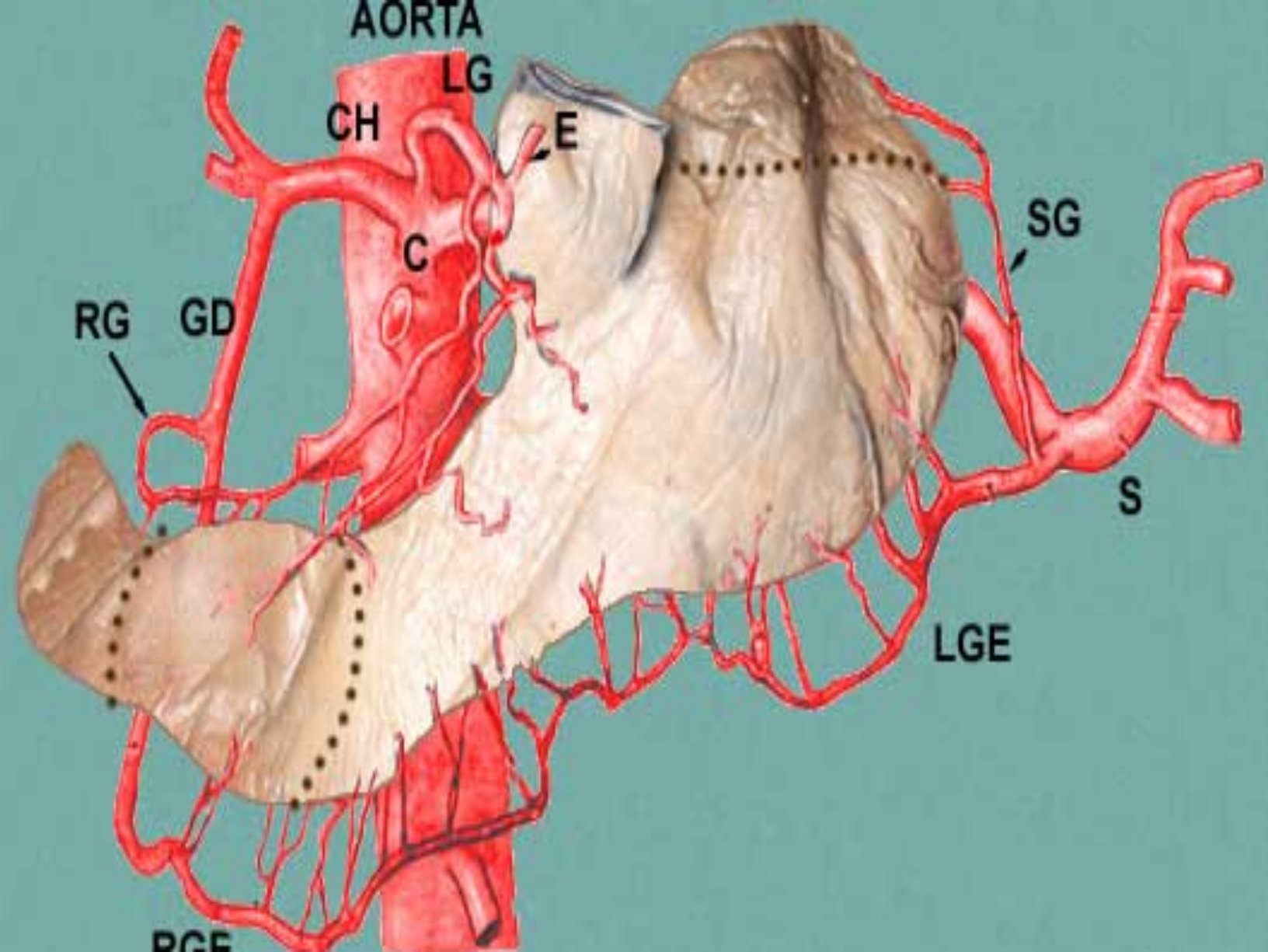






Stomach

Normal anatomy and histology


AORTA
LG
CH
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C
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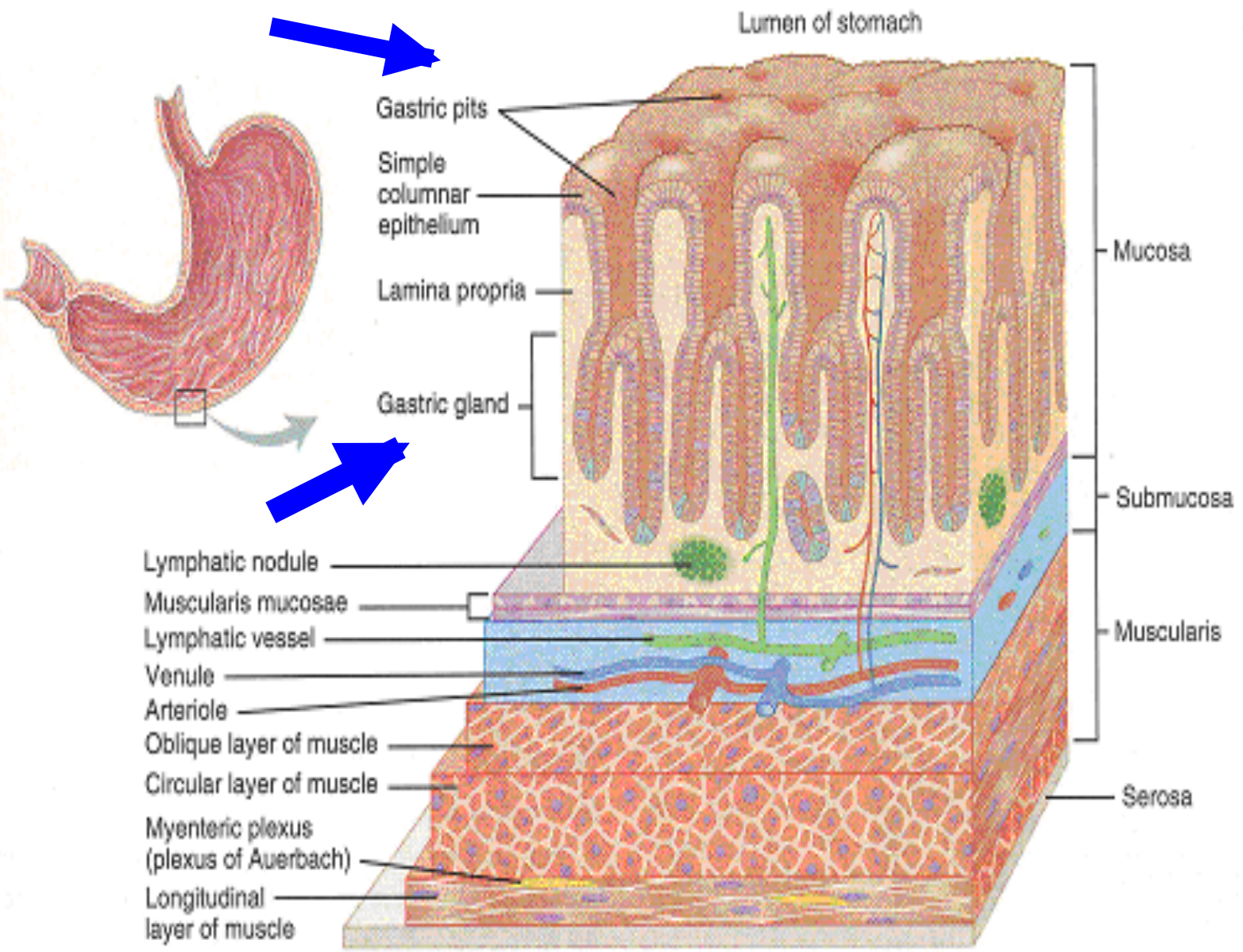
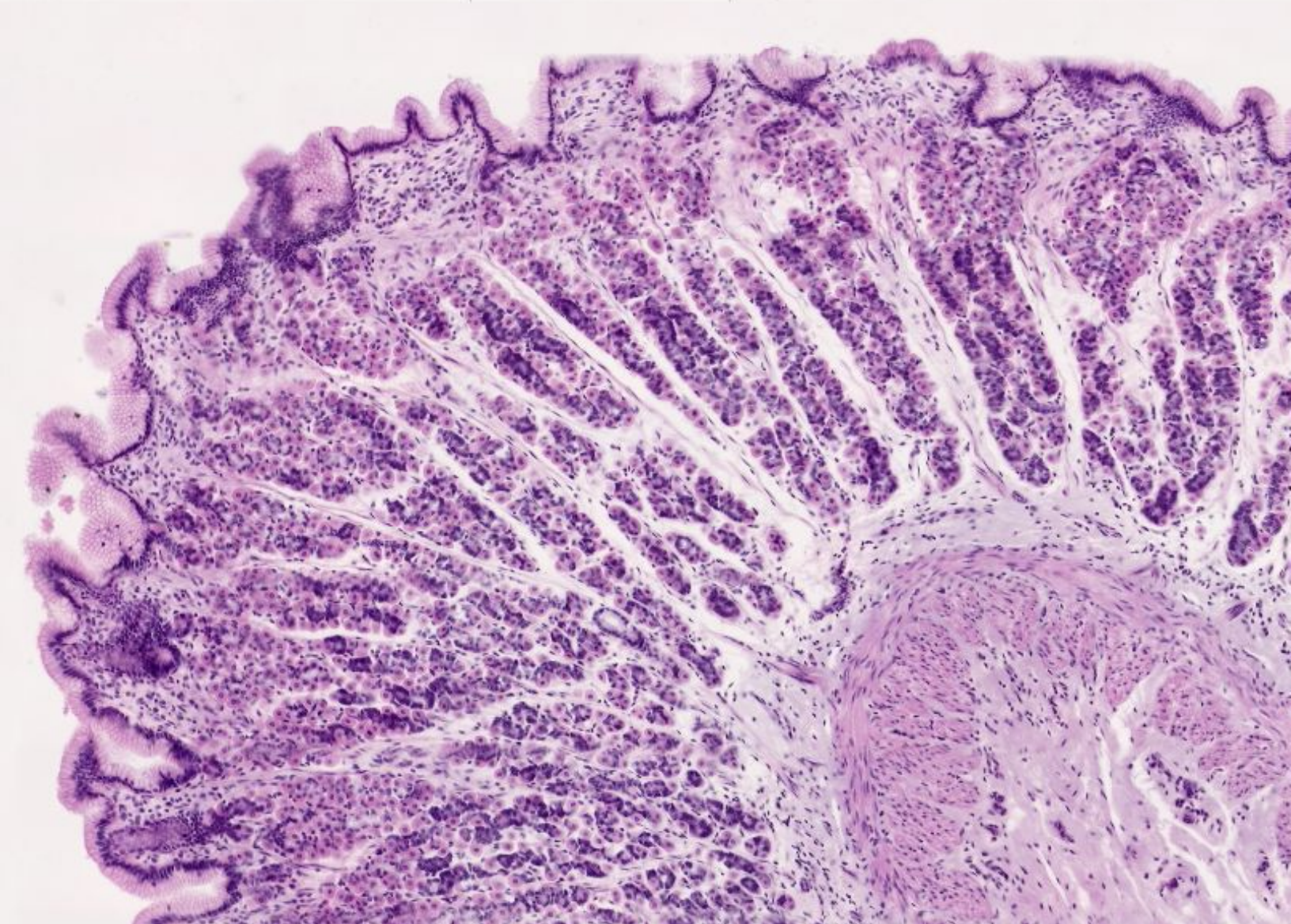

Lumen of stomach
Gastric pits
Simple columnar epithelium
Lamina propria
Gastric gland
Mucosa
Submucosa
Muscularis
Serosa
Lymphatic nodule
Muscularis mucosae
Lymphatic vessel
Venule
Arteriole
Oblique layer of muscle
Circular layer of muscle
Myenteric plexus (plexus of Auerbach)
Longitudinal layer of muscle



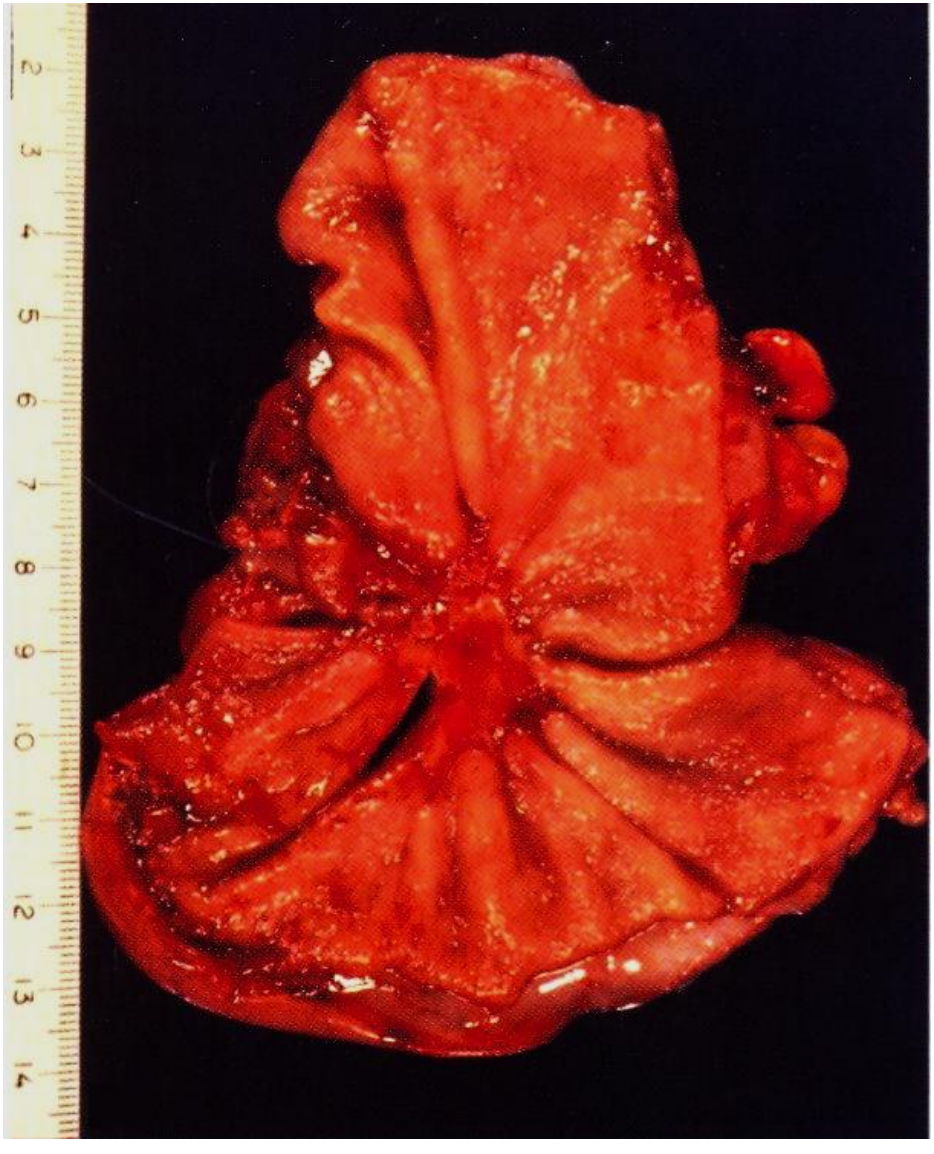
Gross and histopathology

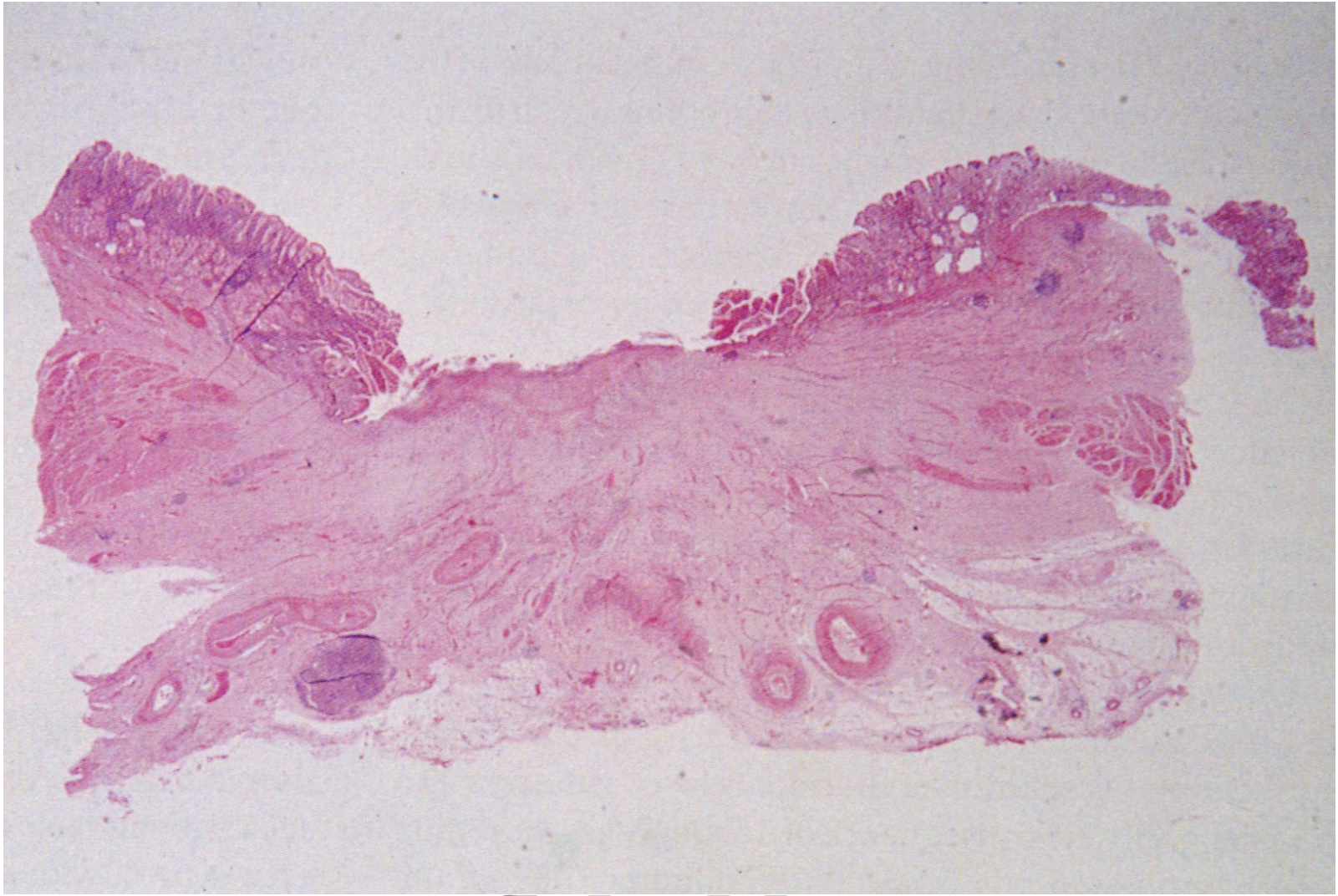
Chronic gastric ulcer

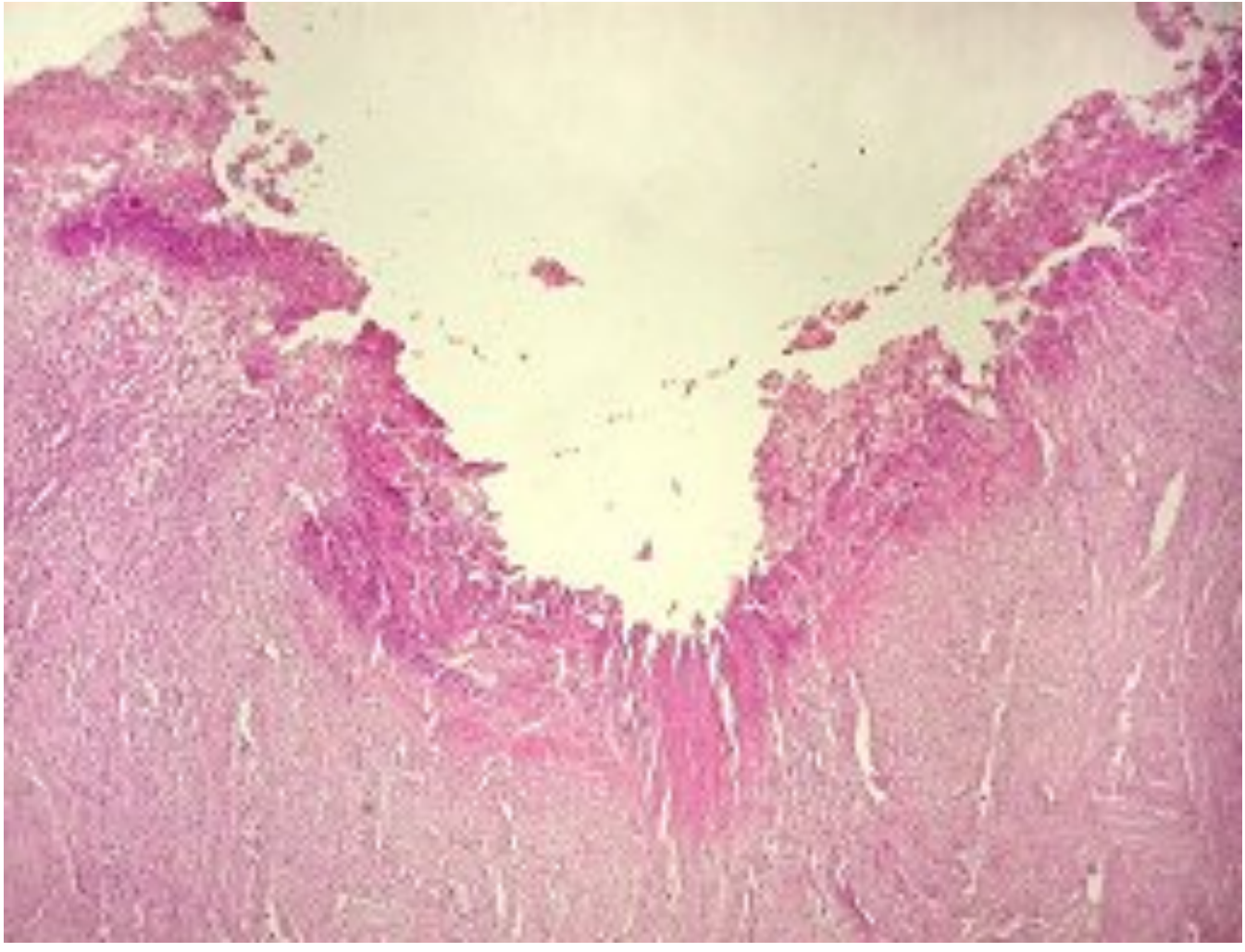
“PEPTIC” ULCERS

- “PEPTIC” implies acid cause/aggravation
- ULCER vs. EROSION (muscularis mucosa intact)
- MUC□SUBMUC□MUSCULARIS□SEROSA
- Chronic, solitary (usually), adults
- 80% caused by H. pylori
- 100% caused by H. pylori in duodenum
- NSAIDS

“STRESS”







The Base of a Non-perforated Chronic Peptic Ulcer

Necrosis (N)

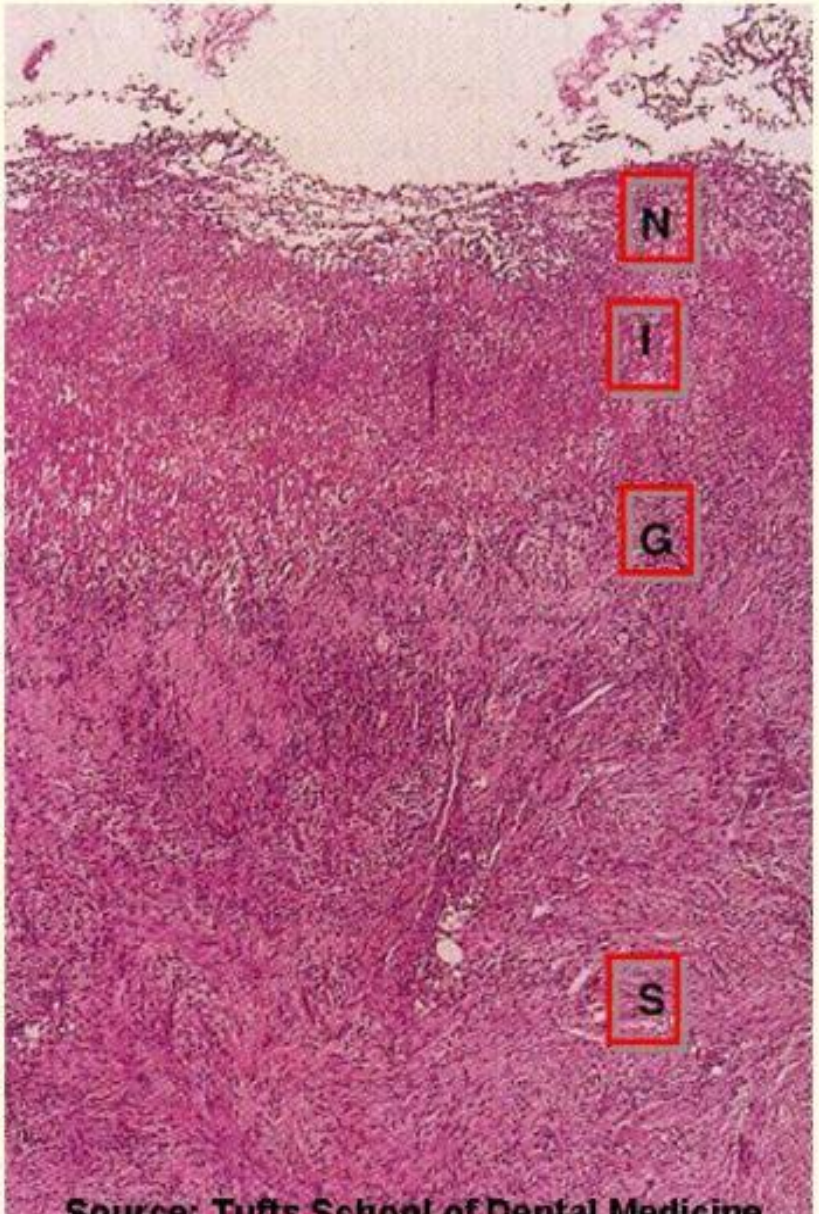
Inflammation (I)

Granulation tissue (G)

Scar (S)

(Top - luminal surface,

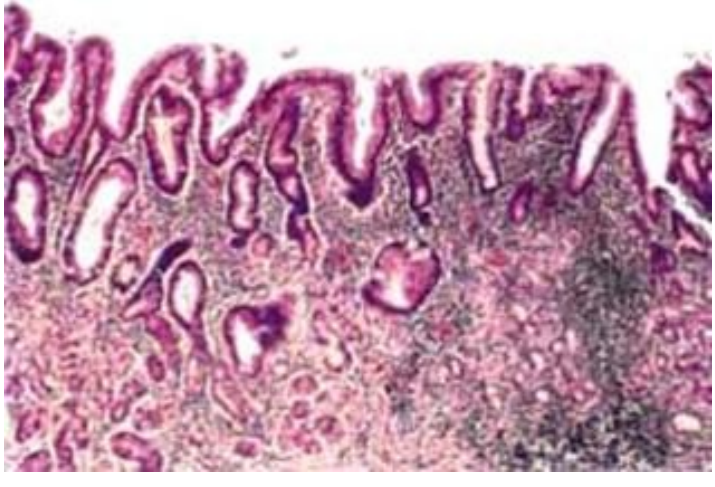
Bottom - muscular wall)

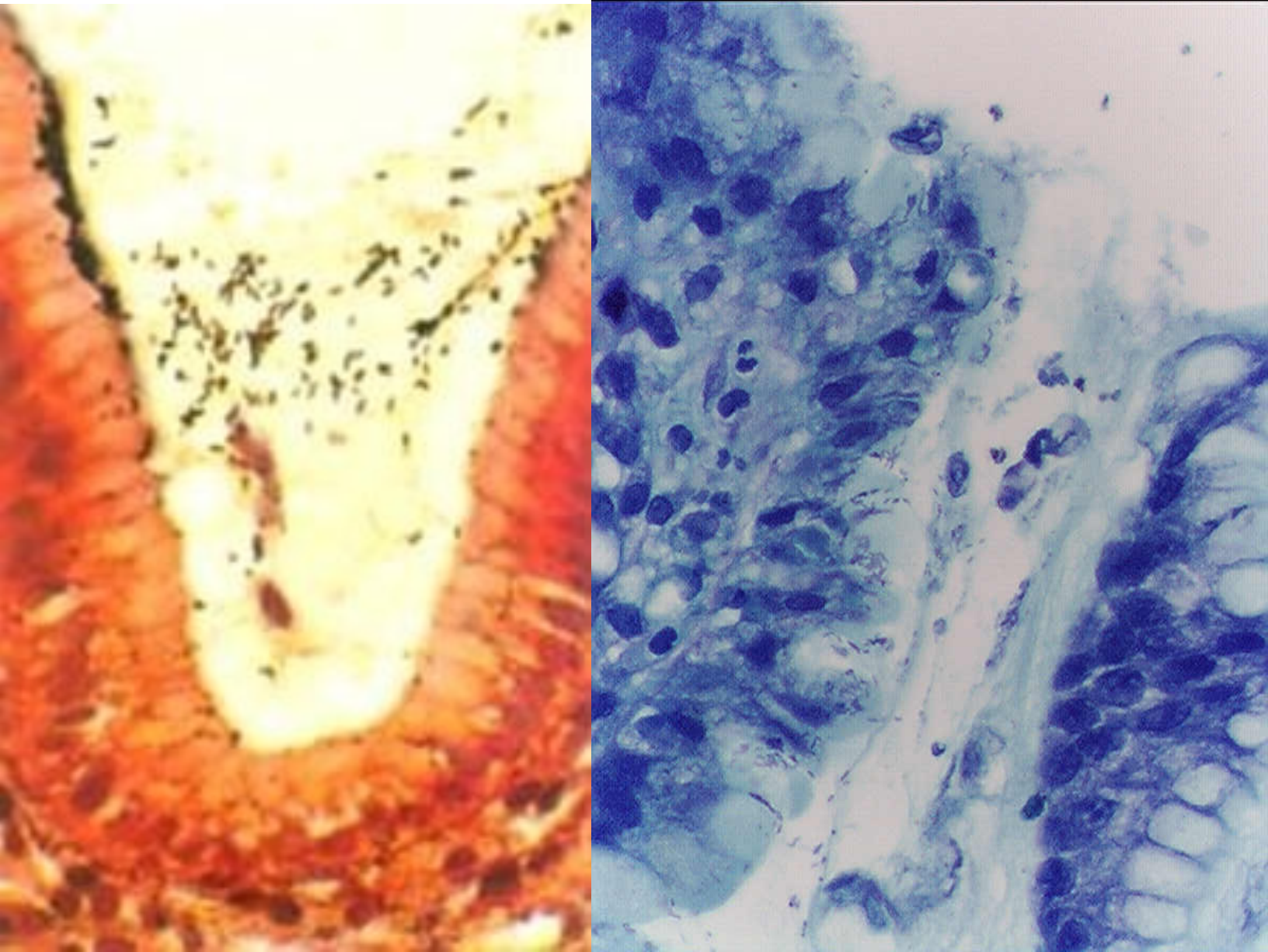


Gastritis Helicobacter induced

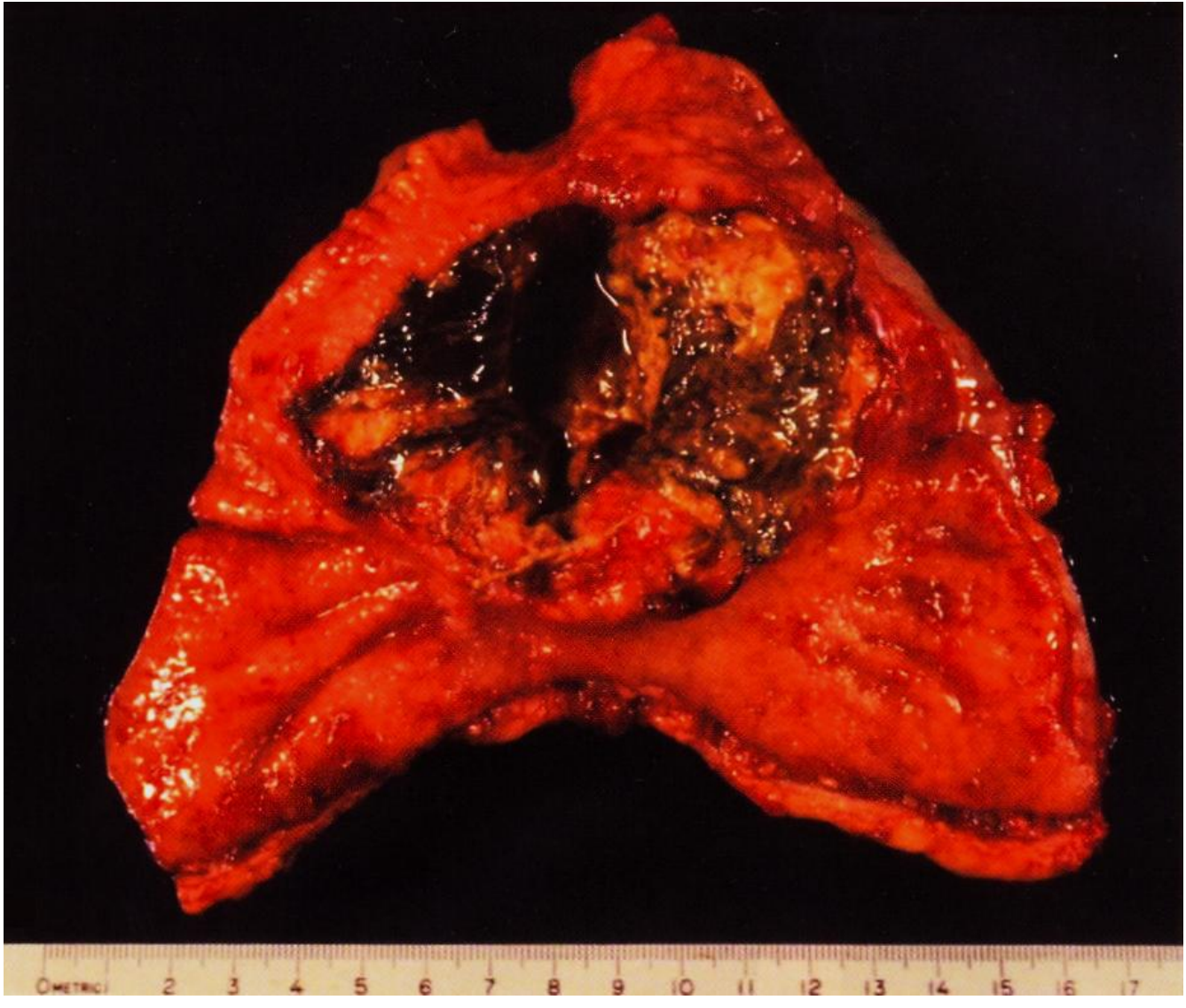
GASTRITIS

- CHRONIC, NO EROSIONS, NO HEMORRHAGE
- Perhaps some neutrophils
- Lymphocytes, lymphoid follicles
- REGENERATIVE CHANGES
  - METAPLASIA, intestinal
  - ATROPHY, mucosal hypoplasia, “thinning”
  - DYS-PLASIA





Carcinoma of the stomach


METRIC
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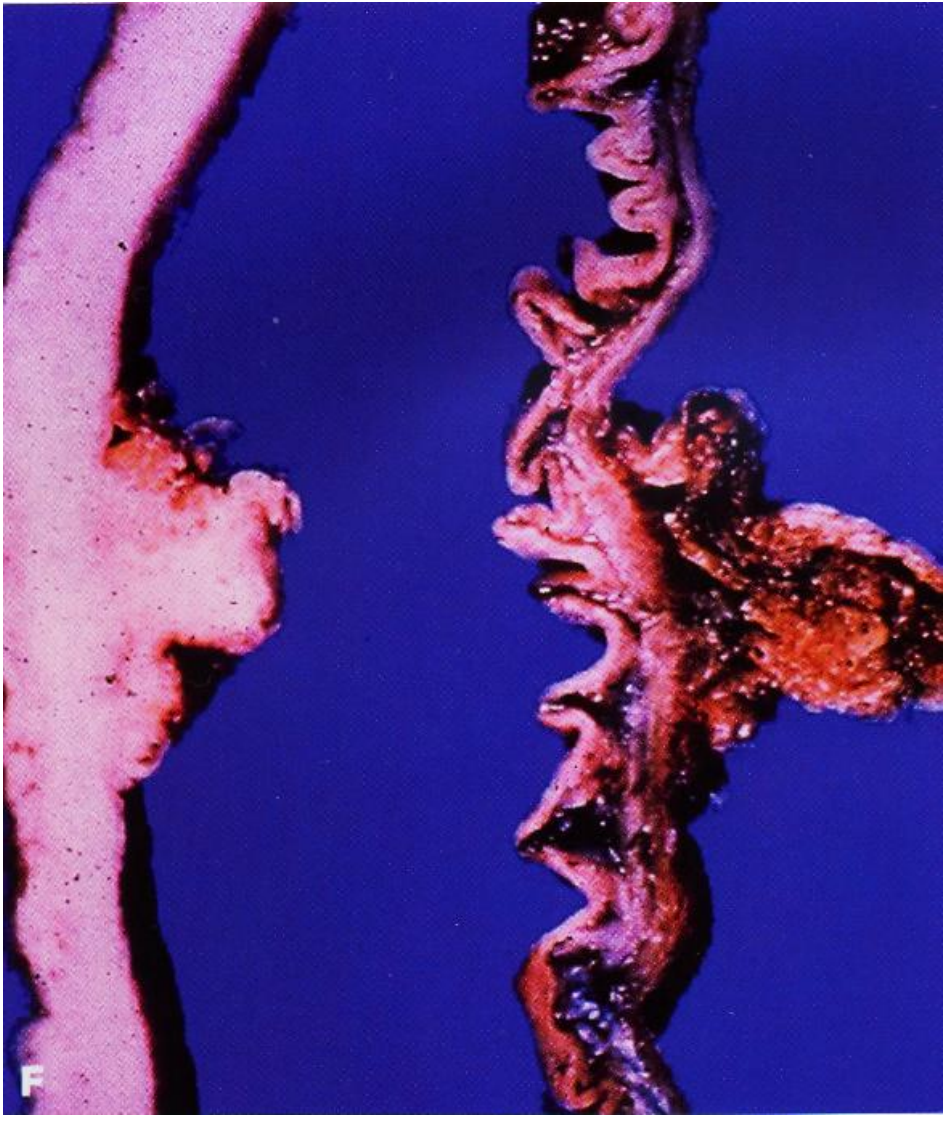
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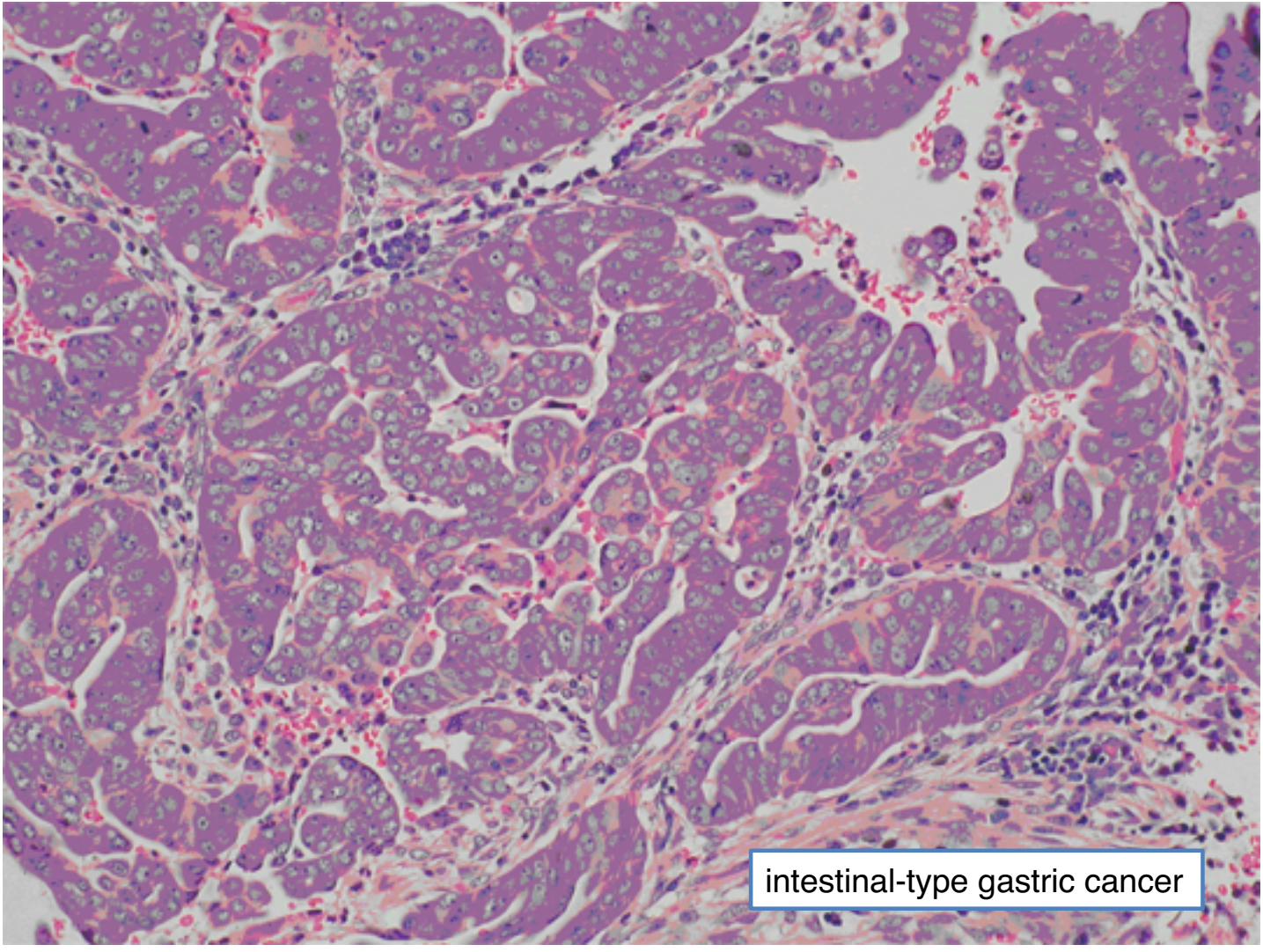
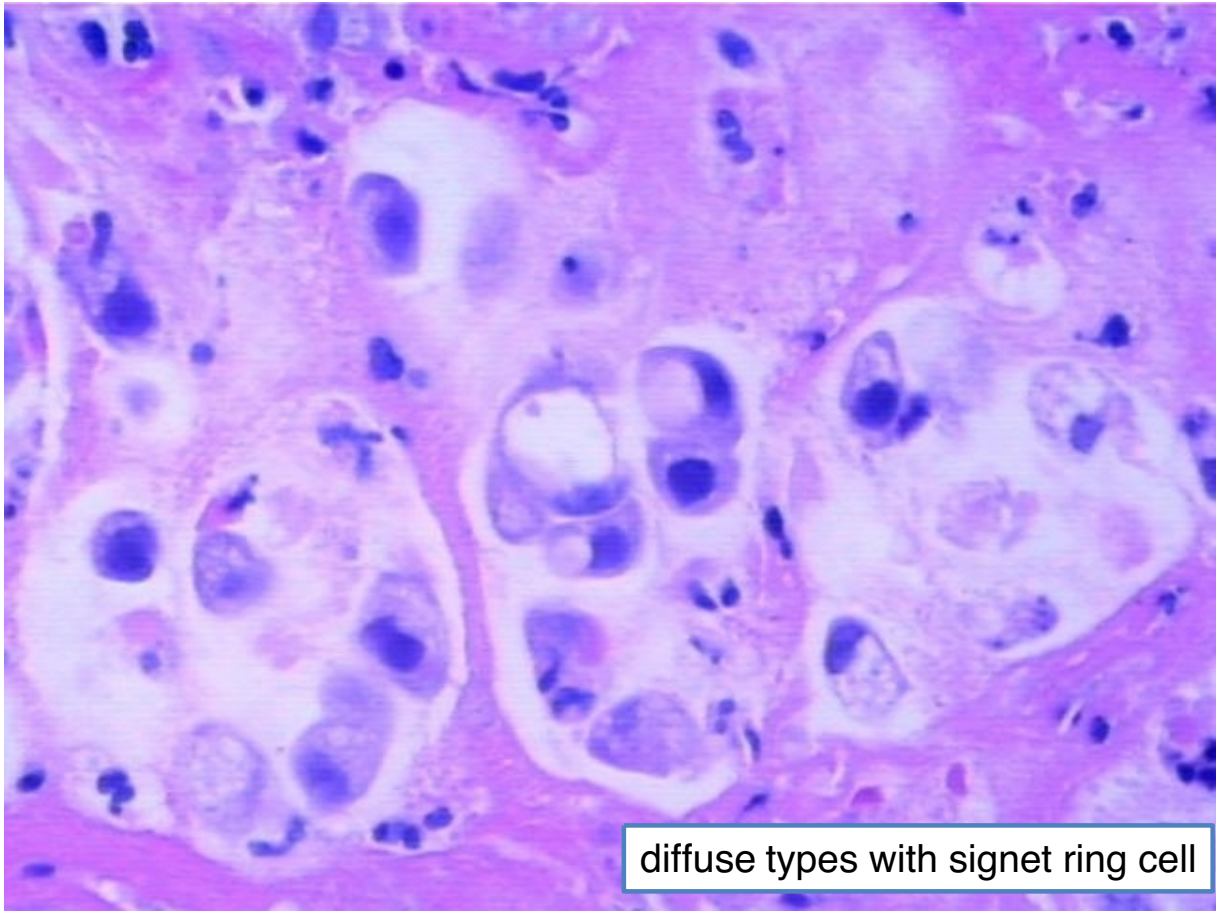
ADENOCARCINOMA GROWTH PATTERNS


intestinal-type gastric cancer

Gastric adenocarcinoma of the diffuse signet ring cell type

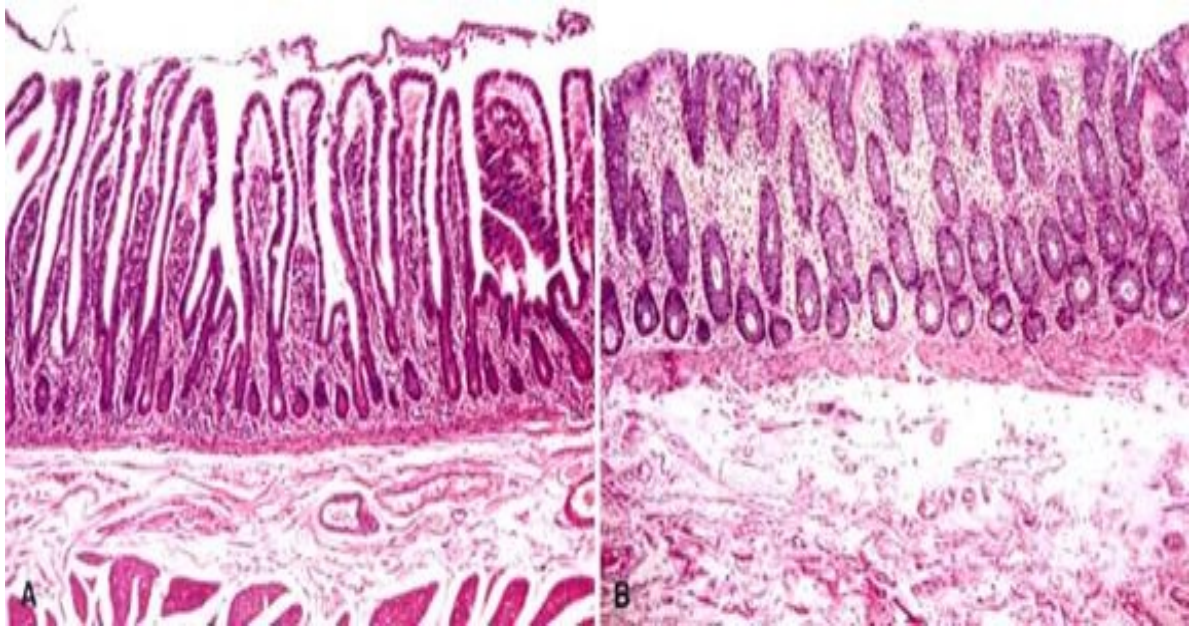


Small intestine

Normal histology

MUCOSA

- SI: ABSORPTIVE, MUCUS, PANETH (apical granules)
  - VILLI
- LI: MUCUS, ABSORPTIVE, ENTEROENDOCRINE (basal granules)
  - CRYPTS



Gross and histopathology

Chronic duodenal ulcer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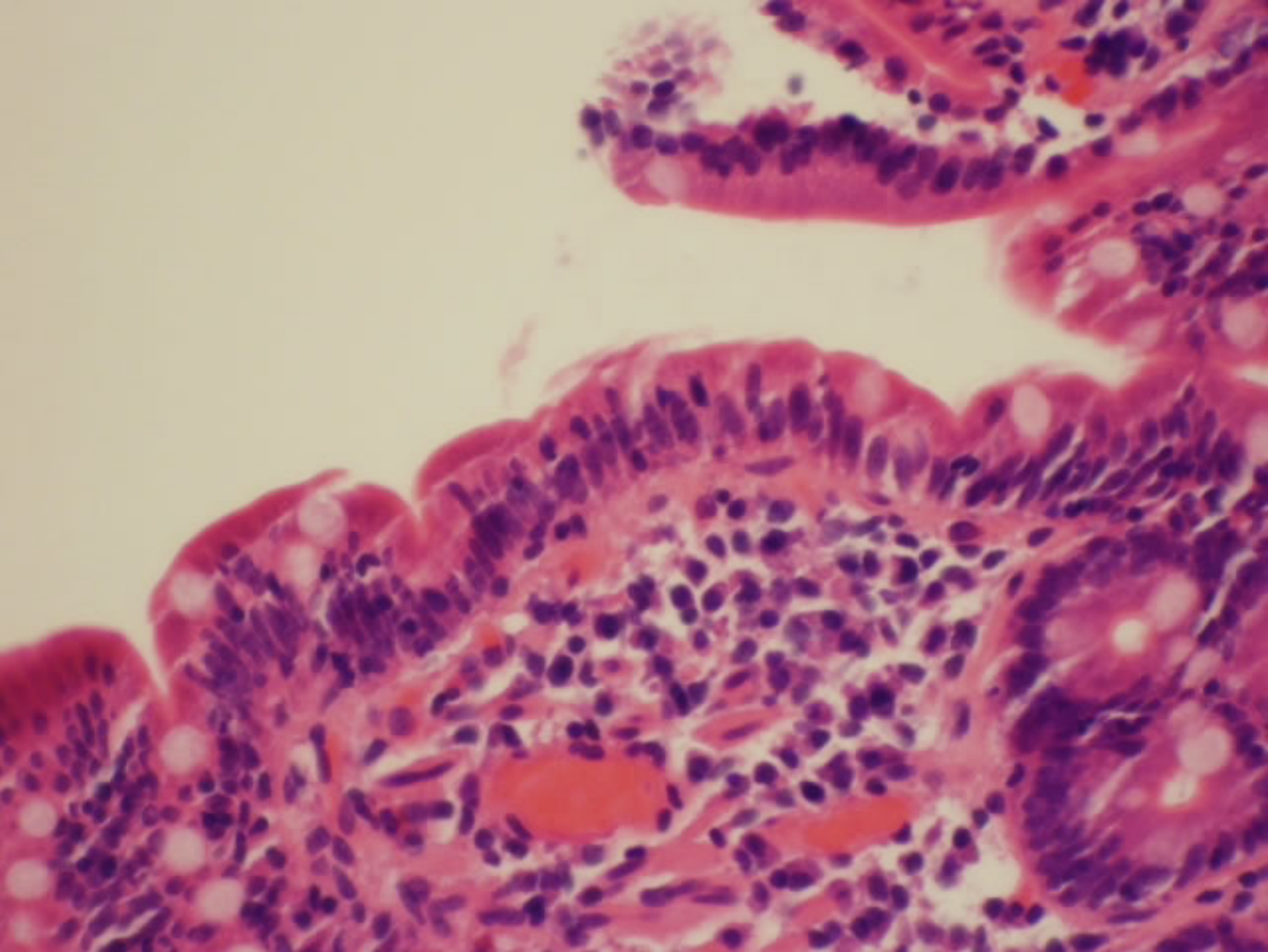
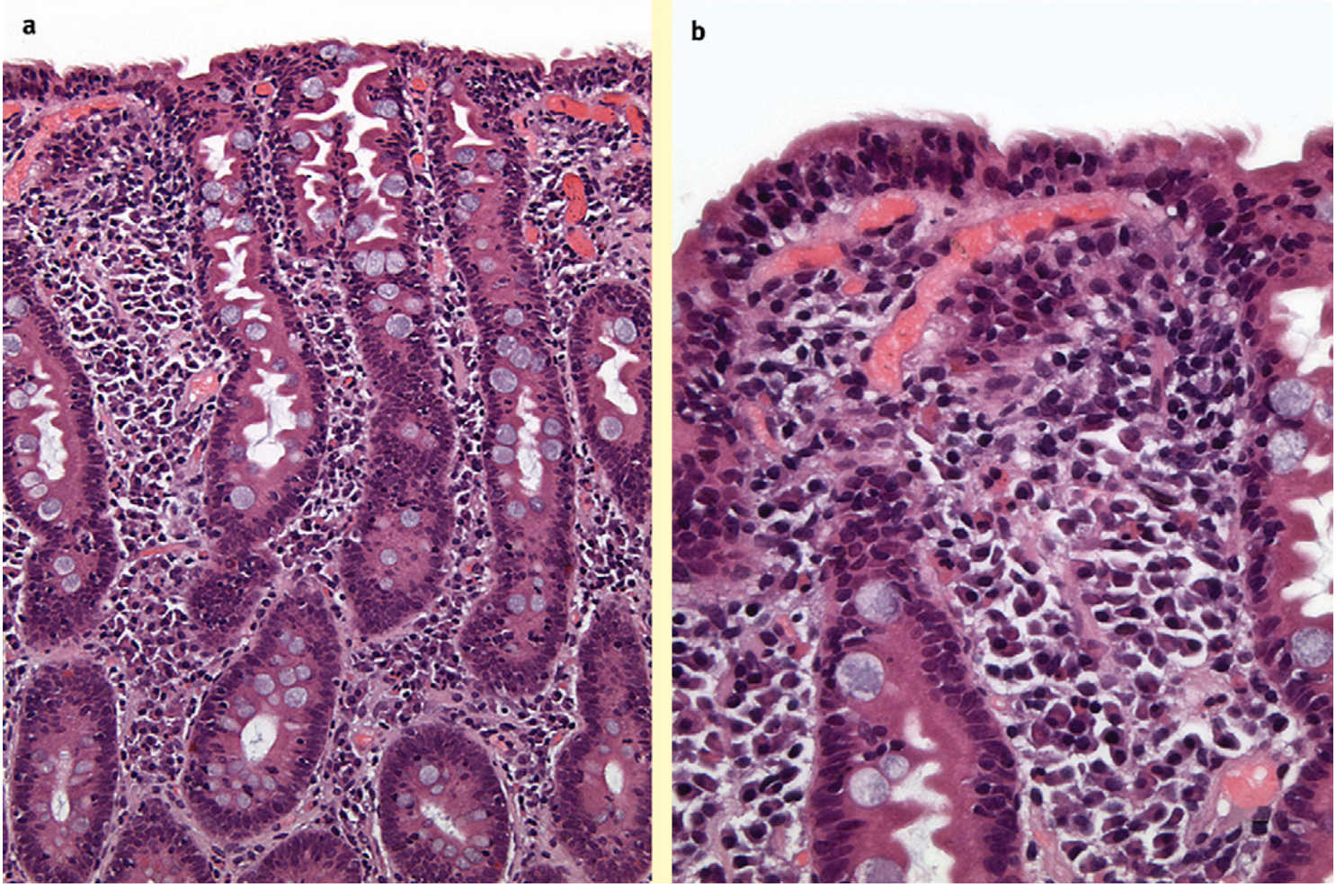
Celiac disease

Villous length to crypt length
3/1

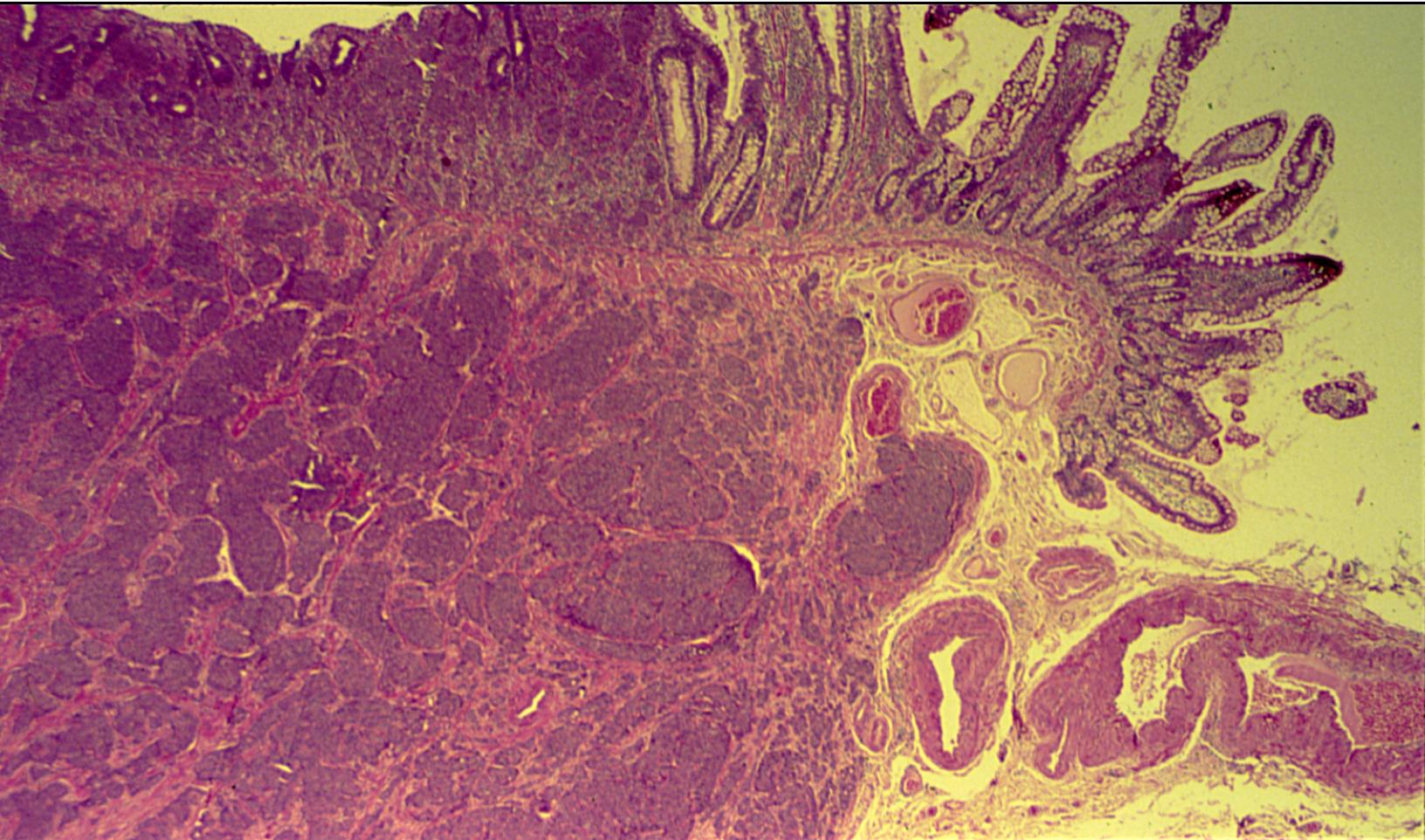




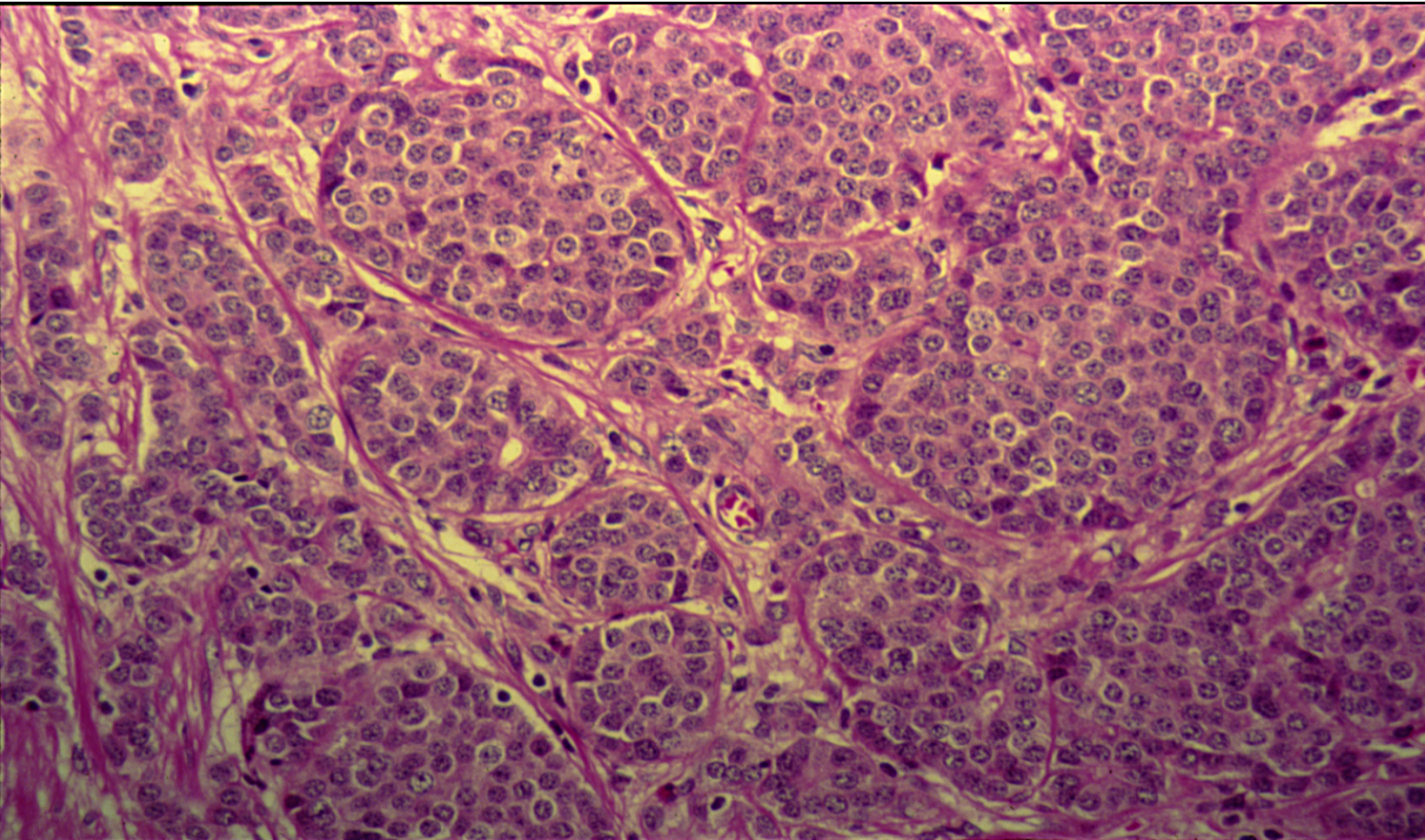
a Low-power view of fully developed sprue-type changes. Note the elongated crypts with complete lack of villi. b High-power view showing
damaged surface epithelium with large numbers of intraepithelial lymphocytes.

Carcinoid tumour

CARCINOID OF SMALL INTESTINE



CARCINOID TUMOUR OF SMALL INTESTINE



Carcinoid of the small intestine:

Section of small intestine shows surface ulceration and an infiltrating tumour mass in mucosa and submucosa

Tumour consists of alveolar groups and clumps of small uniform polygonal cells having centrally placed round nuclei and abundant granular cytoplasm.