

Gastrointestinal Pathophysiology (HST-121)

Laboratory Assignment #3

(Due Friday, November 18th)

NAME:

Recommended reading:

1. Lecture notes on Lipid Digestion, Mucosal Immunology, Motility, and Neoplasms

In a "classical" case of ulcerative colitis, which of the following features are present:

- Granulomas
- Fissuring ulcers
- Fistulas
- Mural thickening and fibrosis
- Creeping fat
- Bloody diarrhea
- Strictures
- Dilatation
- "Skip" areas
- Perianal disease such as fissures and tags

Decide if each of the following statements is true or false?

- Polymeric Ig receptor (pIgR) is initially targeted to the basolateral surface of enterocytes.
- Intraepithelial lymphocytes (IELs) are an equal mixture of T and B cells.
- IELs are predominantly CD45RO positive, suggesting that they are memory cells.
- If activated, IELs can function as cytolytic effector cells.
- Celiac sprue results in iron-deficiency because of a molecular defect in proteins involved in transepithelial iron transport.
- Compared with UC, Crohn's disease is associated with a higher risk of adenocarcinoma.
- Angiodysplasia is a term commonly used to refer to Hereditary Hemorrhagic Telangiectasia.
- Gastric lipase breaks triglycerides into diglycerides and fatty acids.
- Pancreatic lipase breaks triglycerides into monoglycerides and fatty acids.
- Achalasia is lower esophageal obstruction due to a mass-occupying lesion.

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The microscopic slide labeled GI-6 shows a section of stomach resected from a 49-year-old relatively healthy female who initially presented with mild epigastric pain and occult blood in stools. She underwent upper and lower endoscopy by a gastroenterologist who found no discrete masses anywhere. A random gastric biopsy, however, was diagnosed as unequivocal adenocarcinoma by the pathologist. Which one of the following will be facing a malpractice suit? The surgeon, the gastroenterologist, the pathologist, or none of the above?

From microscopic slides GI-2, GI-10, GI-11, and GI-12, choose the one that best fits each of the following descriptions:

- Patient presented with hepatic enlargement, progressive ascites, intermittent diarrhea, and episodes of wheezing.
- 63-year-old smoker who presented with chief complaint of "food sticking in his chest."
- Barium enema showed a constricting lesion of sigmoid in a 75-year-old with blood in stools.
- 50-year-old asymptomatic man who underwent his first screening colonoscopy.
- Tumor consists of "nest" of relatively uniform cells with round, "salt-and-peppery" nuclei.
- Tumor consists of infiltrating "glands" with irregular borders and highly dysplastic epithelial cells.
- Tumor consists of irregular sheets and clusters of poorly differentiated cells arising from dysplastic squamous epithelium.