1. A patient with a neuroendocrine tumor of the pancreas and an adrenal pheochromocytomas most likely has what inherited condition?
   a. Multiple Endocrine Neoplasia Type 1
   b. Multiple Endocrine Neoplasia Type 2
   c. Neurofibromatosis type 1
   d. Von Hippel Lindau

Correct Answer: D

Explanation:
Multiple endocrine neoplasia Type 1 has a triad of parathyroid hyperplasia, pituitary adenoma and pancreatic neuroendocrine tumors. Affected individuals do not develop pheochromocytoma. While up to half of patients with MEN Type 2 can develop pheochromocytomas (along with medullary thyroid carcinoma) they do not have an increased risk of pancreatic neuroendocrine tumors. Up to half of patients with hypertension and neurofibromatosis 1 (NF1) have pheochromocytomas while 1 – 5% of normotensive patients with NF1 have pheochromocytomas. Approximately 10% of patients with von Hippel Lindau disease develop pheochromocytomas and 15 – 20% can develop pancreatic neuroendocrine tumors of the pancreas. Thus, VHL is the best response.

References:

Modality: C04.L Not applicable
Primary Content: C03.C; C04.C
Anatomy: C03.H Pancreas; C04.A Adrenal
Pathology: C034.C; C04.C Neoplasm

2. Serous ovarian neoplasms most likely originate from:
   a. Appendix
   b. Endometriomas
   c. Endometrium
   d. Fallopian Tube
   e. Vagina
Correct Answer: D

Explanation:
Literature from the histology literature now suggests that most ovarian serous neoplasms are in fact not ovarian in origin but instead originate from the Fallopian tube epithelium. When women are having a hysterectomy for symptomatic adenomyosis or leiomyomas, then surgeons should now consider removing the adjacent Fallopian tubes in order to prevent future development of ovarian cancer. In women with BRCA1 and 2, it has been suggested that bilateral salpingectomy may be preferable to oophorectomy in preventing the development of ovarian cancer.

References:

Modality: C04.L Not applicable
Primary Content: C04.C Pathology; C04.D Development
Anatomy: C04.G Gynecologic
Pathology: C04.C Neoplasm

3. The most common site of primary GI lymphoma is?
   a. Esophagus
   b. Stomach
   c. Small bowel
   d. Large bowel
   e. Liver

Correct answer: B

Explanation:
“Numerous studies have demonstrated that the stomach is the most common site of primary GI lymphoma, comprising approximately 47%-54% of all cases. Some have observed differing presentations between high- and low-grade gastric lymphomas on presentation and endoscopy, with high-grade gastric lymphomas presenting more often with vomiting and weight loss, ulcerations on endoscopy, and higher stages at presentation. Low-grade lymphomas are generally associated with H. pylori infection and demonstrate “normal” mucosa, petechial fundal hemorrhage or confinement to the antrum.”

References:
4. Which of the following is not a known risk factor for primary GI Lymphoma?
   a. Celiac disease
   b. Use of aspirin
   c. Ulcerative colitis
   d. Immunosuppression following solid organ transplantation
   e. Cohn’s disease

Correct Answer: B

Explanation:
“Many risk factors for primary GI lymphoma have been described, including celiac disease, human immunodeficiency virus infection/acquired immunodeficiency syndrome, ulcerative colitis, Crohn's disease, and immunosuppression following solid organ transplantation. Patients with celiac disease have a 200-fold increased risk of developing intestinal lymphoma, particularly enteropathy-associated T-cell lymphoma, which has an extremely poor prognosis with a median survival time of 4 months.”

Reference:
1) Imaging of primary gastrointestinal lymphoma.
   Chang ST, Menias CO
   Semin Ultrasound CT MR. 2013 Dec;34(6):558-65.

5. The biggest risk factor for nonalcoholic fatty liver disease is:
   a. Hepatitis B
   b. Alcohol abuse
   c. IVDA (IV Drug Abuse)
   d. Obesity
   e. Prior episodes of pancreatitis

Correct answer: D

Explanation:
Nonalcoholic steatohepatitis will become the most common chronic liver disease in 20 years. 7-10% of patients undergoing liver biopsy have nonalcoholic steatohepatitis. Obesity is the biggest risk factor for nonalcoholic fatty liver disease and 15-30% of obese patients have nonalcoholic steatohepatitis. “Assessment of liver attenuation by use of unenhanced CT represents an objective and noninvasive means for detection of asymptomatic hepatic steatosis, whereas clinical risk factor assessment is unreliable.”

References
1) Nonalcoholic Fatty Liver Disease
   Lall CG et al.
   AJR 2008; 190;993-1002
2) Hepatic Steatosis (Fatty Liver Disease) in Asymptomatic Adults Identified by Unenhanced Low-Dose CT
   Boyce CJ et al
   AJR 2010; 194:623-628