Gastroenterology and Hepatology: Challenging Cases with your Participation

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Hepatology Section Up to Date
1. All of the Following Statements Regarding Eosinophilic Esophagitis Are True Except:

A. The major symptoms are dysphagia or food impaction.

B. The female to male ratio is 3:1.

C. Prevalence 50-100 per 100,000 (similar to Ulcerative Colitis)

D. Defined as a chronic immune / antigen mediated disease with eosinophil predominant inflammation histologically (> 15 eos per hpf).

E. Endoscopic findings include trachealization of the esophagus, linear furrows and whitish exudates (eosinophil microabscesses).

F. Treatment consists of diet therapy (elemental diet, empiric elimination diet, directed elimination diet, PPI, biological agents.)
Endoscopic and Histological Features of Eosinophilic Esophagitis
2. A 62 year old woman admitted to the hospital with an upper GI bleed is found at an emergent upper GI endoscopic examination to have a duodenal ulcer. Choose the ONE INCORRECT Statement:

A. Most rebleeding occurs within 72 hours of presentation.
B. In patients with a visible vessel, the rate of recurrent hemorrhage is 20%.
C. In patients with active spurting, the rate of recurrent hemorrhage is 60%.
Ulcer: Overlying Clot
Ulcer: Visible Vessel
Ulcer: Arterial Bleeding
Ulcer: Arterial Bleeding
3. Extraintestinal manifestations of inflammatory bowel disease include all of the following EXCEPT:

A. Uveitis
B. Pyoderma gangrenosum
C. Destructive arthritis
D. Calcium oxalate kidney stones
E. Amyloidosis
Eye

Episcleritis

Uveitis
Skin

Erythema Nodosum

Pyoderma Gangrenosum
Pyoderma Gangrenosum
Pathergy

Pyoderma gangrenosum

Behcet’s Syndrome
2 Requisites for Enteric Hyperoxaluria

1. Steatorrhea

2. An intact colon
4. Traveler’s diarrhea is defined as at least 3 unformed stools in 24 hours with abdominal discomfort, cramps, or vomiting in a person traveling from an industrialized region to a tropical or subtropical region. Choose the one incorrect statement:

A. Individuals traveling from low risk regions to high risk regions of Latin America, southern Asia and much of Africa have a 40% chance of developing illness.

B. Intestinal protozoa are common causes of acute cases of Traveler’s diarrhea.

C. Bacterial pathogens such as E.coli, shigella, salmonella, campylobacter, aeromonas and pleisomonas account for more than 50% of cases in most areas.

D. Travelers to developing countries should generally be given a fluoroquinolone for empirical self-treatment if needed. Fluoroquinolone drugs are contraindicated in pregnant women and in children younger than 16 years. The emergence of fluoroquinolone-resistant strains of campylobacter is of concern especially for travelers to Thailand and other parts of southeast Asia.
Traveler’s Diarrhea Has Many Names!

Montezuma’s Revenge
Aztec Two Step
Casablanca Crud
Delhi Belly
Puna Poohs
Hong Kong Dog
Trotsky’s
5. A 56 year old salesman complains of intermittent non-progressive dysphagia to solids only. He has had these symptoms for a year. He denies heartburn or weight loss. He likely has:

A. Peptic stricture
B. Diffuse esophageal spasm
C. Achalasia
D. Schatzki’s ring
Schatzki’s Ring
“Rules” of Dysphagia

1. Dysphagia is never psychogenic
2. Dysphagia is never physiologic
3. The lesion is at or below where the patient points
4. Dysphagia for only solids mechanical
5. Dysphagia for liquids & solids motility
6. The rule for Schatzki rings
Rule for Schatzki Rings

• **Less than 12 mm lumen:** Dysphagia present

• **More than 18 mm lumen:** Dysphagia absent

• **Between 12 and 18 mm lumen:** Dysphagia depending on how gluttonous the patient is!
6. A 54 year old salesman is admitted to the hospital with jaundice, ascites, and hepatic encephalopathy. He has a longstanding history of heavy alcohol ingestion. Physical examination is notable for jaundice, peripheral stigmata of chronic liver disease, hepatomegaly and ascites.

His serum AST is 152 IU/L, serum ALT 71 IU/L, serum albumin 3.1 mg/dl, total bilirubin 15mg/dl with a direct fraction of 10.4, his prothrombin time is 17 seconds with a control of 12 seconds.

A diagnostic paracentesis is performed and reveals straw colored fluid with a protein content of 0.9 gm/dl. The white count in the ascitic fluid is 120 white cells.
Choose the **ONE CORRECT** statement among the following:

A. The patient has severe alcoholic hepatitis as judged by his serum bilirubin and prothrombin time.

B. The diagnosis of spontaneous bacterial peritonitis can be excluded because the patient’s ascitic fluid has a low protein consistent with a “transudate.”

C. Corticosteroids do not reduce the short-term mortality in patients with severe acute alcoholic hepatitis.
7. 48 yr old alcoholic man is noted to have new-onset ascites; a diagnostic paracentesis yields milky fluid with a triglyceride level of 382 mg/dl. All of the following statements regarding chylous ascites are true EXCEPT:

A. Chylous ascites may be seen in patients with lymphoma
B. Chylous ascites may be seen in patients with peritoneal tuberculosis
C. Chylous ascites may be seen in patients with carcinoid syndrome
D. Chylous ascites may be seen in patients with lung cancer
E. Chylous may occur following abdominal trauma
Chylous Ascites and Bloody Ascites

Tumor

Trauma
Chylous Ascites
Patient has both Chylous Ascites and Secretory Diarrhea

What’s the diagnosis?

Carcinoid Syndrome
8. Select the **ONE TRUE** statement regarding neoplasms of the liver:

A. Patients with both idiopathic genetic hemochromatosis and Wilson’s disease have a substantial risk of developing primary hepatocellular carcinoma, particularly if cirrhosis is present.

B. Hepatic adenomas are not associated with the use of oral contraceptives.

C. Patients with angiosarcoma of the liver have a high incidence of exposure to vinyl chloride, arsenic, or thorium dioxide.
9. Liver disorders unique to pregnancy include acute fatty liver of pregnancy and the HELLP syndrome. Choose the one incorrect statement:

A. Microvesicular fatty infiltration of the liver is characteristic but not diagnostic of acute fatty liver of pregnancy.

B. Liver rupture with hemorrhage is a rare but life-threatening complication of the HELLP syndrome.

C. Intrahepatic cholestasis of pregnancy is associated with pre-eclampsia.
10. Inherited disorders of bilirubin metabolism are defined as hereditary syndromes where the cause of hyperbilirubinemia is related to a genetic disorder affecting bilirubin transport and metabolism. Choose the one incorrect statement:

A. Inherited disorders of bilirubin metabolism include Gilbert’s syndrome, Crigler-Najjar syndromes Type I and II and Dubin-Johnson syndrome.

B. Gilbert’s syndrome affects 3-8% of the general population in the Western world and is more common in males.

C. The hallmark of Crigler-Najjar Type I syndrome is mild indirect hyperbilirubinemia (usually less than 5 mg/dl).

D. Patients with Crigler-Najjar Type II syndrome benefit with Phenobarbital treatment (60-180 mg. in divided doses).
This patient has been jaundiced his entire life. Physical exam and lab tests other than serum bilirubin are entirely normal

A. What’s the diagnosis?

B. What treatment was instituted?
11. All of the following statements regarding pancreatitis are true EXCEPT:

A. Etiologic associations for acute pancreatitis include gallstones, trauma, hypertriglyceridemia, and administration of aerosolized pentamidine.

B. In most series, the etiology in 10% of patients with recurrent acute pancreatitis is felt to be idiopathic. However, microlithiasis is present in approximately 50% of these patients.

C. The height of the serum amylase correlates with the severity of acute pancreatitis.

D. Complications of chronic pancreatitis include massive GI bleeding from gastric varices and common bile duct stenosis.
MORTALITY OF ACUTE PANCREATITIS

On Admission
1. Age > 55 years
2. WBC > 16,000 mm$^3$
3. Glucose > 200 mg%
4. SGOT > 250 S.F.U.
5. LDH > 700 I.U.

Within First 48 Hours
1. Ca$^{++}$ < 8.0 mg%
2. Hct fall > 10 points
3. BUN increase > 5 mg%
4. PaO2 < 65 mm Hg
5. Base Deficit > 4 mEq/L
6. Fluid sequestration > 6L

< 3 Clinical Features - Mortality = 3%
3 or > Clinical Features - Mortality = 62%

Modified Ranson Criteria
Acute Pancreatitis: CT Criteria of Severity

A. Normal
B. Enlargement
C. Peripancreatic Inflammation
D. Single Fluid Collection
E. Multiple Fluid Collections
Pancreatic Pseudocyst
Etiology has bearing on Mortality

- Alcohol: 3-5%
- Gallstones: 10%
- Idiopathic: 15%
- Trauma: 20%
- Post-operative: 40%
Grey-Turner’s Sign

35% mortality!
What is the diagnosis?

Cullen’s Sign: Ruptured Ectopic Pregnancy
12. A 38 year old woman with a history of biopsy proven alcoholic cirrhosis is admitted to the hospital with jaundice, ascites and mild confusion. The serum albumin is 2.9 gm/dl. The ascitic fluid has an albumin content of .9 gm/dl and a white cell count of 1242 cells with 82% polymorphonuclear leukocytes.
All of the following statements are correct EXCEPT:

A. The likely cause of ascites in this patient is portal hypertension.
B. The patient has spontaneous bacterial peritonitis (SBP).
C. Anaerobes can be cultured from the ascitic fluid in approximately 20% of patients with SBP.
Bacteriology of SBP

• E. Coli
• Klebsiella
• Other Gram Negative Bacteria
• Pneumococcus
• Enterococcus
• Staphylococcus
• Other Gram Positive Bacteria
Bacteriology of SBP

Distinctly Rare!

- Anaerobes
- Multiple Organisms
- Pasteurella multocida
- Neisseria gonorrhea
Spontaneous Bacterial Peritonitis

The UNIFYING FEATURE of the type of ascites susceptible for SBP is LOW PROTEIN CONCENTRATION of the ascitic fluid.

Patients who have ascites with high protein concentration (heart failure, peritoneal carcinomatosis) are resistant to SBP.
13. Which of These Two Statements is False?

A. Patients with pernicious anemia have normal serum gastrin values.

B. A fasting serum gastrin in excess of 500 pg/ml is not diagnostic of Zollinger-Ellison syndrome.

A is False
B is True
Very High Serum Gastrin Levels are seen

• When the patient has **marked acid hypersecretion** (i.e. Z-E syndrome)

  **OR**

• When the patient has **achlorhydria**
14. Duodenal Ulcer is associated with all of the following EXCEPT:

A. H. pylori
B. NSAIDs
C. G cell hyperplasia
D. Gastrinoma
E. Pancreatic cholera syndrome
Schwartz’s Dictum (1910)

No Acid, No Ulcer
pH or Hp!
eNough SAID !!!
Essentially Three Causes of Duodenal Ulcer

1. pH: Gastrinoma (ZE Syndrome)

2. Hp: Helicobacter pylori infection

3. NSAID’s (Non-Steroidal Anti-Inflammatory Drugs)