Directions: Questions (1-20) Circle the one best answer

C 1. A 42-year-old asymptomatic male is found to have mild hepatomegaly and elevated liver enzymes on a routine physical examination. He does not drink alcohol and takes no medications. He is 5 feet 4 inches tall and weighs 200 pounds. The laboratory studies reveal aspartate aminotransferase (AST) 70 U/L (nl: 0-35), alanine aminotransferase (ALT) 120 U/L (nl: 0-35), GGTP 150 U/L, normal alkaline phosphatase, ANA negative, anti-smooth-muscle antibody negative, hepatitis profile negative, total cholesterol 280 mg/dL, triglycerides 450 mg/dL, HDL 30 mg/dL. The abdominal sonogram reveals increased echogenecity consistent with fatty infiltration. The liver biopsy reveals steatosis, infiltration by mononuclear and polymorphonuclear cells, hepatocyte ballooning, spotty necrosis and Mallory's hyaline.
Based upon the above information the most likely diagnosis is:

(A) Alcohol induced liver disease
(B) Autoimmune hepatitis
(C) Nonalcoholic steatohepatitis
(D) Wilson's Disease

B 2. A 30-year-old male presents with history of abdominal discomfort, flatulence, bloating, diarrhea and weight loss of six months duration. The examination reveals vesicular eruption over both elbows. The laboratory studies reveal hemoglobin 10 g/dL, hematocrit 31%, MCV 70fL, serum iron 20ug/dL (nl: 60-160), iron binding capacity 500ug/dL (nl: 250-460), ferritin 8 mg/L (nl: 15-200)
Based upon the above information you will now order:
(A) Colonoscopy
(B) IGA antiendomysial antibody (anti-tissue transglutamase antibody)
(C) Upper GI and small bowel x-rays
(D) Gastroscopy

Dx: Celiac Sprue

C 3. A 27-year-old patient is admitted with acute pancreatitis. Four days after admission patient develops high fever with worsening abdominal pain. The examination reveals a temperature of 102 C and marked upper abdominal tenderness without rebound. A CT scan with contrast shows a solid mass of inflammatory tissue around the pancreas. A CT guided needle aspiration is performed and gram stain of the aspirate is positive for gram-negative organism.
Based upon the above information you will now recommend:

(A) IV broad-spectrum antibiotics
(B) IV antibiotics plus insert a CT guided percutaneous drainage tube
(C) IV antibiotics plus surgical debridement

B 4. A 54- year- old patient consults you because of weight loss, diarrhea, abdominal discomfort of two months duration. He returned 4 months ago after a two-week vacation in China. He also gives a history of recurrent episodes of swelling and tenderness of multiple joints for the last 6 years. The stools are bulky, fowl smelling, greasy and float on the top. He has lost 20 pounds in the last 2 months. The physical examination shows generalized lymphadenopathy and slight diffuse abdominal tenderness. The stool examination shows no ova & parasites and stool culture is negative. The stool fat is 18 g/ 24 hrs. The D-xylose test is abnormal. The small bowel biopsy shows dilated lymphatics and macrophages with PAS+ granules.
Based upon the above information, the most likely diagnosis is :
(A) Crohn's disease
(B) Whipple's disease
(C) Celiac sprue
(D) Tropical sprue

B 5. A 40-year-old female presents with 6-month history of weakness, progressive weight loss, and recurrent purpuric eruptions over lower extremities and arthralgias involving multiple joints. She also gives history of Raynaud's phenomenon for the last few months The blood tests reveal Hb 10 g/dL, HCT 32%, serum globulin 4.5 gm/dL (nl : 2-3.5), BUN 40 mg/dL, Creatinine 2.5 mg/dL AST 100 U/L (nl : 0-35), ALT 90 U/L (nl : 0-35), ANA positive with diffuse pattern, RF positive, low C3 & C4 levels, HBsAg & HBsAb negative and positive hepatitis C antibody. The urine is positive for RBC's and RBC's casts.
Based upon the above information, the most likely diagnosis is :
(A) Polyarteritis nodosa
(B) Mixed cryoglobulinemia
(C) SLE
(D) Autoimmune hepatitis

D 6. A 26-year-old patient consults you because of 6 month history of fatigue, arthralgias, weight loss and amenorrhea. The physical examination reveals scleral icterus and hepatosplenomegaly. Laboratory tests reveal bilirubin 6 mg/dL, AST 300 U/L (nl : 0-35), ALT 350 U/L (nl : 0-35), ALKPO4 100 U/mL (nl : 30-85), albumin 2.9 g/dL (nl : 3.5-5.5), globulin 4.1 g/dL. The hepatitis B surface antigen and antibody and hepatitis C antibody are negative.
All the following statements about this patient are correct except :
(A) ANA and smooth muscle antibody are likely to be positive
(B) Percutaneous liver biopsy should be done to confirm the diagnosis
(C) She is likely to respond to high dose prednisone therapy
(D) She is likely to respond to alpha interferon therapy.

B 7. A 36-year-old female with long standing history of ulcerative colitis and has been on sulfasalazine for the last 8 years consults you because of weight loss, jaundice, RUQ abdominal pain and pruritus. The laboratory studies reveal bilirubin 10 mg/dL, AST 60 U/L (nl : 0-35 U/ml), ALT 56 U/L (nl : 0-35), ALKPO4 840 U/L(nl : 30-85). The abdominal sonogram is normal.
The best test to confirm the diagnosis now should be:
(A) Liver biopsy
(B) ERCP or MRCP
(C) Antimitochondrial antibody
(D) CT scan of abdomen

D 8. On a routine physical examination, a 52 year-old-white female is found to have the following abnormalities on blood tests. AlkPO4 500 U/L (nl : 30-85), GGT 300 U/L (nl : 0-35), Cholesterol 400 mg/dL (nl: < 200) normal AST, ALT and bilirubin. Besides history of excessive itching, she denies any other complaints. Abdominal sonogram is normal.
What test you will now order to confirm her diagnosis:
(A) Abdominal CT scan
(B) ERCP
(C) Smooth muscle antibody
(D) Antimitochondrial antibody

A 9. A 68-year-old man presents with 1-day history of fever, chills and RUQ abdominal pain. Physical examination reveals temperature of 103 F and RUQ tenderness without rebound. Laboratory tests reveal WBC 15000 / uL, AST 150 U/L (nl: 0-35), ALT 160 U/ L (nl: 0-35), ALKPO4 400 U/L (nl: 30-85). The sonogram and CT scan reveal dilated common bile duct and no gallstones. The blood cultures are drawn and patient is started on antibiotics.
Based upon the above information, you will now recommend:
(A) ERCP with possible sphincterotomy
(B) Surgical exploration
(C) HIDA scan
(D) Antimitochondrial antibody

C 10. A 49-year-old man presents because of increasing abdominal girth for the last few months. He gives history of hepatitis 10 years ago. Examination reveals tense ascites. Blood tests reveal albumin 3.2 g/dL, (nl : 3.5-5.5 g/dL), globulin 4.1g/dL (nl : 1.5-3.9). AST 80 U/L(nl : 0-35), ALT 76 U/L (nl : 0-35), AlkPO4 68 U/L (nl : 30-85). Abdominal paracentesis reveal clear fluid that contains 10 mononuclear cells/ uL, total protein of 2.0 g/dL and albumin of 1.5 g/dL.
Based upon the above information, the most likely cause of ascites is:
(A) Tuberculosis involving the peritoneum
(B) Peritoneal carcinomatosis
(C) Cirrhosis with portal hypertension
(D) CHF

11. A 52-year-old woman consults you because of progressive dysphagia for both solids and liquids, episodes of choking and coughing at night, intermittent regurgitation of undigested food and weight loss. The symptoms started about 1 year ago and she has lost about 30 pounds during this time. She also gives history of occasional chest discomfort, which is not relieved by antacids. The chest x-ray shows widened mediastinum. The most likely diagnosis is:

(A) Carcinoma of esophagus
(B) Esophageal stricture
(C) Achalasia
(D) Lower esophageal ring

12. A 32-year-old chronic alcoholic presents because of a 4-hour history of severe retrosternal chest pain. The pain is worse on breathing and swallowing. The examination reveals superficial crackling sounds over the LSB on ascultation. The EKG is normal. The chest x-ray reveals left pleural effusion and air in the mediastinum.

The best way to confirm the diagnosis is:
(A) Trans-esophageal echocardiogram
(B) MRI of the chest
(C) Gastrograffin swallow
(D) Upper GI endoscopy

Dx: Esophageal Rupture

13. A 32-year-old man comes to the hospital because of severe epigastric pain radiating to the back, nausea, vomiting, fever and chills of few hours duration. Physical examination reveals temperature of 103 F, epigastric and RUQ tenderness without rebound and hypoactive bowel sounds. Both lipase and amylase are markedly elevated. The abdominal sonogram reveals gallstones and dilated common bile duct.
Patient is started on IV fluids, antibiotics and nasogastric suction.
Based upon the above information, you will also recommend:

(A) Cholecystectomy and common duct exploration within 24 hours
(B) Cholecystectomy and common duct exploration after one week
(C) ERCP and sphincterotomy within 24 hours and cholecystectomy prior to discharge from the hospital
(D) HIDA scan

B 14. A 32-year-old female with long standing history of ulcerative colitis and has been on sulfasalazine for many years is admitted because of severe bloody diarrhea, marked weakness, fever and abdominal pain. The physical examination reveals a temperature of 102 F, pulse 110/minute and BP of 110/70. The abdomen is distended with diffuse tenderness. The flat plate of abdomen shows transverse colon to be dilated to a diameter of 7 cm. The HCT is 30 % and the WBC count is 14000/ uL. The sigmoidoscopy shows friable colonic mucosa with multiple ulcerations. She is treated with high dose IV hydrocortisone, antibiotics and nasogastric suction. 48 hours later, the abdominal pain persists and she remains febrile and feels very weak. A repeat x-ray of abdomen shows further dilatation of transverse colon to about 10 cms.

>6cm → toxic megacolon

Based upon the above information, you will now recommend.

(A) Add azathioprine
(B) Total colectomy
(C) Continue present therapy
(D) Add IV metronidazole

D 15. A 44-year-old female consults you because of weight loss and chronic diarrhea. She has 4-5 bulky fowl smelling stools every day. She has history of Crohn's disease and more that 100 cms of small bowel was resected about 2 years ago. The stool fat is 20 gms in 24 hours and the sed rate is normal.

Dx: Bile salt deconjugation

Based upon the above information, you should now recommend:

(A) Oral metronidazole
(B) Cholestyramine
(C) Corticosteroids
(D) Low fat diet and adding medium chain triglycerides

C 16. A 72 year-old man is admitted to CCU because of an antero-septal MI. The course is complicated by an episode of atrial fibrillation requiring cardioversion. Four days after admission patient develops sudden onset of severe colicky abdominal pain associated with vomiting. Patient denies any rectal bleeding. The physical examination reveals diffuse abdominal tenderness and distension. The x-ray of abdomen reveals few distended loops. The stools are positive for occult blood. The WBC count is 12000/ uL. The amylase is 300 U / L .

Based upon the above information, you will now recommend :

(A) Colonoscopy
(B) Abdominal CT scan
(C) Abdominal angiogram
(D) Exploratory laprotomy

17. You are asked to evaluate a 40- year-old female because of elevated bilirubin. She was admitted with acute appendicitis and underwent emergency appendectomy 3 days ago. She is still NPO and receiving intravenous fluids and antibiotics (clindamycin and gentamicin). She denies any abdominal pain now and on examination abdomen is soft and non-tender. The laboratory tests reveal bilirubin 5.0 mg/dL with indirect bilirubin of 4.2 mg/dL. The AST, ALT, LDH and ALKPO4 are normal. She did not receive any blood transfusion postoperatively. Based upon the above information, you will now recommend:

(A) Abdominal sonogram
(B) CT scan of abdomen
(C) HIDA scan
(D) No further diagnostic tests

Dx: Gilbert's Syndrome

18. A 38-year-old man consults you because of recurrent epigastric discomfort and chronic diarrhea. He has a long history of peptic ulcer disease and underwent partial gastrectomy with Billroth II anastomosis one year ago. The GI series shows a stomal ulcer and hypertrophy of the gastric folds. The test for Helicobacter pylori is negative. The fasting serum gastrin level is 500 ng/L and after intravenous infusion of secretin, the gastrin levels rises to 900 ng/L. All the statements about this patient are correct except:

(A) Diarrhea is caused by inactivation of pancreatic lipase due to high acid production
(B) CT scan is likely to show pancreatic tumor
(C) Resection of the distal antrum attached to the duodenal stump is indicated
(D) Hypercalcemia may be associated with this disorder

19. A 80-year-old patient presents because of left sided abdominal pain and recurrent bright red rectal bleeding of 2 days duration. Abdominal examination shows left sided tenderness without rebound. Plain film of abdomen shows evidence of thumb printing in the descending colon. The sigmoidoscopy reveals friable colonic mucosa with multiple ulcerations. The WBC count is 11000 / uL

Based upon the above information, you will now recommend:

(A) High dose steroids
(B) Abdominal angiogram
(C) Exploratory laprotomy
(D) Continued close observation

B 20. A 70-year-old man is hospitalized because of fever, LLQ abdominal pain and constipation of 2 days duration. The physical examination reveals temperature 101 F, tenderness in the LLQ of the abdomen with localized rebound tenderness in the same area. The WBC count is 15000/uL and the amylase is normal. The abdominal x-ray shows non-specific bowel pattern with no free air under the diaphragm. Based upon the above information, you will now recommend:
(A) Sigmoidoscopy, IV fluids and antibiotics
(B) CT scan of abdomen, IV fluids and antibiotics
(C) Colonoscopy, IV fluids and antibiotics
(D) Exploratory laprotomy, IV fluids and antibiotics

Directions: Items 21-50 are true and false questions. Mark T for statements that are correct and F for statements that are incorrect

21-23 A 52-year-old patient with history of pernicious anemia for 5 years consults you because of 2 weeks history of epigastric discomfort after eating. He has been receiving vitamin B12 injections monthly. The blood tests reveal positive serum antibody to parietal cell and intrinsic factor and the fasting gastrin level is 3400 N ng/L Which of the following statements are true about this patient

F 21. Patient most likely has a gastrin producing tumor of the pancreas
T 22. The high gastrin levels are due to achlorhydria as a result of atrophic gastritis
T 23. There is an higher incidence of development of gastric carcinoma and gastric carcinoid in this patient

24-26 The true statements about infection with Helicobacter pylori include:

T 24. It is a major factor in causing peptic ulcer disease
T 25. The ulcer recurrences can be more effectively prevented by eradication of this organism than by continuous acid suppression
F 26. Most patients have gastritis involving the fundus and body of the stomach

27-30 The true statements about NSAIDS use include:

T 27. It increases the risk of bleeding in patients with ulcer disease
T 28. Concomitant steroid use increases the risk of toxicity
F 29. There is no risk of gastric toxicity with enteric-coated NSAIDS
T 30. NSAIDS induced gastric toxicity can be prevented by concomitant use of misoprostol

31-34 The true statements about spontaneous bacterial peritonitis include:

T (31) It is more common in ascites with total protein content of < 1 gm/dL
T (32) Total neutrophil count in ascitic fluid is > 250/uL
F (33) Polymicrobial infection is common
T (34) Blood cultures are positive in < 50%

35-38 The alpha interferon has been found to be effective in treatment of the following forms of chronic hepatitis

T (35) Hepatitis B
T (36) Hepatitis C
T (37) Hepatits D
F (38) Autoimmune hepatitis

39-42 The true statements about inflammatory bowel disease include:

T (39) The rectal involvement is seen in majority of patients with ulcerative colitis
T (40) Ulcerative proctitis is best treated by local steroid or 5 ASA enemas
F (41) Perianal disease and fistulas are more common with ulcerative colitis than Crohn's disease
T (42) Yearly surveillance colonoscopy with mucosal biopsies should be done in patients with ulcerative colitis of >10 years

43-46 True statements about infectious diarrheas include:

T (43) The traveller's diarrhea is most commonly caused by enterotoxigenic E. coli
T (44) Enterohemorrhagic E. coli (0.157 : H7) may cause hemolytic uremic syndrome
T (45) Bacillus cereus is associated with ingestion of oriental fried rice
T (46) Vibrio parahemolyticus is associated with ingestion of uncooked shell fish

47-50 The true statements about malabsorption syndrome include:

T (47) Fecal fat of > 40 gms suggests chronic pancreatic insufficiency
T (48) Bacterial overgrowth causes malabsorption by deconjugation of bile salts
T (49) Malabsorption in patients with extensive small bowel resection occurs due to loss of bile salts
F (50) Pancreatic insufficiency is associated with abnormal D xylose test

Answers to Gastroenterology Questions

1.	C	26.	F
2.	B	27.	T
3.	C	28.	T
4.	B	29.	F
5.	B	30.	T
6.	D	31.	T
7.	B	32.	T
8.	D	33.	F
9.	A	34.	T
10.	C	35.	T
11.	C	36.	T
12.	C	37.	T
13.	C	38.	F
14.	B	39.	T
15.	D	40.	T
16.	C	41.	F
17.	D	42.	T
18.	C	43.	T
19.	D	44.	T
20.	B	45.	T
21.	F	46.	T
22.	T	47.	T
23.	T	48.	T
24.	T	49.	T
25.	T	50.	F