



Diploma (2013) examination in: Tropical Medicine & Infectious diseases  
Date: 14 / 11 / 2020  
Number of questions: Three  
Time Allowed: Three Hours  
Total assessment marks: 180 Marks

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الورقة الأولى

## Hepatology & Gastroenterology

All questions must be answered

### I- Case scenario (30 marks)

A 53-year old male patient came to follow up at the clinic after completing his anti-HCV treatment complaining from pain in the right hypochondrium. By examination patient was jaundiced, had a hard tender liver, splenomegaly and lower limb oedema.

- What is the most likely diagnosis? (10 marks)
- What are the laboratory investigations to evaluate this case? (10 marks)
- What are the most accurate imaging technique(s) for diagnosis of the case? (10 marks)

### II. Choose the single best answer of the following (2 marks each, total 80 marks):-

- Ascites in portal hypertension is characterized by:
  - Ascitic leucocytes  $>500$
  - Ascitic PH  $<7.45$
  - Serum albumin/ascites albumin  $>1.1$
  - Serum LDH/ ascites LDH  $>1.4$
- In which of the following is liver biopsy indicated to diagnose haemochromatosis?
  - Heterozygous HFE gene, ferritin  $> 1000$  ng/ml, high ALT
  - Homozygous HFE gene, high ferritin  $< 1000$  ng/ml, normal ALT
  - Homozygous HFE gene, normal ferritin, high ALT
  - Homozygous HFE gene, normal ferritin, normal ALT



3. A 65 year old gentleman presented with dull aching upper abdominal pain radiating to the back and worsened by eating. He had also noticed yellow discoloration of his skin and had lost weight. In his past medical history, he was diagnosed with diabetes mellitus 6 months earlier. A CT scan revealed a localised mass lesion in the head of pancreas with biliary duct dilatation. All the following are true EXCEPT:
- A diagnosis of pancreatic cancer should be considered in unexplained diabetes (no family history, obesity or steroids) in patients over 50 years of age
  - CT guided biopsy is needed to confirm the diagnosis
  - There is little evidence of benefit from routine biliary stenting of jaundiced patients before resection.
  - Whipple`s operation is the standard operation for cancer of pancreatic head
4. The most common benign tumor in the liver is:
- Hepatic adenoma
  - Hepatic hemangioma
  - Hepatic lipoma
  - Hepatoma
5. Which of the following statements regarding portal hypertension (PH) is true?
- Cardioselective beta blockers like atenolol can be used to decrease PH
  - Decreased nitric oxide is seen in portal hypertension
  - Portal hypertension is associated with high aldosterone levels
  - The earliest ultrasonography finding of PH is reversal of blood flow in portal vein
6. In which disorder is malabsorption due to diminished or absent digestive enzymes:
- Chronic pancreatitis
  - Crohn` s disease
  - Gastric surgery
  - Small bowel ischemia



7. Presence of a “central scar” on contrast enhanced imaging is feature of:
- Focal nodular hyperplasia
  - Hepatic adenoma
  - Hepatic cyst
  - Hepatic hemangioma
8. Primary sclerosing cholangitis is most associated with:
- Coeliac disease
  - Crohn’s disease
  - Primary biliary cirrhosis
  - Ulcerative colitis
9. Which of the following is the least useful in assessing the severity of a patient with liver cirrhosis?
- ALT
  - Prothrombin time
  - The presence of ascites
  - The presence of encephalopathy
10. Which of the following is not associated with non-alcoholic steatohepatitis?
- Hyperlipidaemia
  - Obesity
  - Sudden weight loss or starvation
  - Type I diabetes mellitus
11. A 23- year-old nurse is reviewed at an occupational health clinic following a needle stick injury from a man known to be a carrier of hepatitis B. Which of the following would appear first during acute hepatitis B infection?
- Anti-HBs
  - HBcAg
  - HBeAg
  - HBsAg



12. A 65-year-old man with liver cirrhosis of unknown cause is reviewed in clinic. Which of the following factors is most likely to indicate a poor prognosis?
- Alanine transaminase > 200 u/l
  - Ascites
  - Caput medusae
  - Splenomegaly
13. What is the most appropriate strategy for reducing the vertical transmission rate of HBV?
- Give the mother hepatitis B immunoglobulin shortly before birth + the newborn hepatitis B vaccine
  - Give the mother intravenous zidovudine during labour
  - Give the newborn hepatitis B immunoglobulin
  - Give the newborn hepatitis B vaccine + hepatitis B immunoglobulin
14. Which of the following is FALSE regarding hepatitis E virus?
- It can be transmitted both enterical and parenteral
  - It is a non enveloped virus
  - It is single stranded RNA virus
  - It never causes chronic hepatitis
15. What is the most common cause of the inherited form of emphysema?
- Alpha 1 antitrypsin deficiency
  - Lymphangioliomyomatosis
  - Mucus overproduction
  - Surfactant deficiency



16. Endoscopic biopsy from the lower esophagus in a 48 year old lady with chronic heart burn show presence of columnar epithelium with goblet cells. The feature is most likely consistent with?
- Carcinoma in-situ
  - Dysplasia
  - Hyperplasia
  - Metaplasia
17. A 52-year-old female with abdominal pain has a CT showing an intraluminal mass in the small bowel but is otherwise normal. What is the appropriate next step?
- Barium small bowel series
  - Capsule endoscopy
  - Colonoscopy
  - Percutaneous CT guided needle biopsy
18. *H pylori* is a risk factor for all the following conditions **EXCEPT**:
- Duodenal ulcers
  - Gastric adenocarcinoma
  - Gastroesophageal reflux disorder (GERD)
  - Mucosa-associated lymphoid tissue (MALT) lymphoma
19. In patients with bleeding duodenal ulcers, the endoscopic finding associated with the highest incidence of rebleeding is:
- Clean ulcer bed
  - Duodenitis
  - Shallow, 3-mm. ulcer
  - Visible vessel
20. People with celiac disease **CANNOT** eat which kind of food?
- Dairy products, especially milk
  - Fruits, especially strawberries
  - Grains, especially wheat, rye, and barley
  - Peanuts and nuts



21. Which of the following is the most common cause of ulcerative colitis-related mortality?
- a) Colonic adenocarcinoma
  - b) Colonic infarction
  - c) Perforated colon
  - d) Toxic megacolon
22. A 16-year-old girl complains of chronic abdominal distention, flatulence and diarrhea after drinking milk. Elimination of milk and other dairy products from the patient's diet relieves these symptoms. This example of malabsorption is caused by a functional deficiency of which of the following enzymes associated with the intestinal brush border membrane?
- a) Disaccharidase
  - b) Glycogen phosphorylase
  - c) Hyaluronidase
  - d) Mannosidase
23. Which of the following bacterial organisms is responsible for the least episodes of infectious diarrhea?
- A. Campylobacter
  - B. E. coli
  - C. Salmonella
  - D. Shigella
24. Which of the following statements about constipation is true?
- A. Constipation should be treated initially with castor oil
  - B. Daily bowel movements are required for health and well-being
  - C. Inadequate diet is a major cause of constipation
  - D. Lack of daily bowel movements leads to buildup of toxic substances



25. Which of the following statements regarding Autoimmune hepatitis (AIH) is true?
- a) An acute onset of illness is common (40%)
  - b) Immunoglobulin level is usually normal
  - c) Predominant serum alkaline phosphatase abnormality
  - d) Women are affected more than men (M: F- 1:2)
26. Which of the following statements about irritable bowel syndrome (IBS) is true?
- a) It affects up to 80 percent of adults worldwide
  - b) It is characterized by abdominal pain, disturbed defecation, and bloating
  - c) It is equally prevalent in both men and women
  - d) It is known to be of viral origin
27. The most common indications for splenectomy are, in descending order of frequency:
- a) Hypersplenism, traumatic injury, immune thrombocytopenia
  - b) Immune thrombocytopenia, hypersplenism, traumatic injury
  - c) Immune thrombocytopenic purpura, traumatic injury, hypersplenism
  - d) Traumatic injury, immune thrombocytopenia, hypersplenism
28. Which of the following drugs/components of HCV treatments needs to be adjusted if a patient is on medications that are cytochrome p450 3A/4 inducers or inhibitors?
- a) Daclatasvir
  - b) Paritaprevir
  - c) Sofosbuvir
  - d) Velpatasvir



29. A patient complains of intermittent heartburn, mostly at night following a large meal. Select the true statement.
- a) All patients with GERD will have esophagitis on EGD
  - b) All patients with heartburn have GERD
  - c) Ambulatory esophageal pH monitoring combined with manometry has 75% sensitivity for GERD
  - d) Proton pump inhibitors and lifestyle modification are initial therapy
30. Which of the following disorders has a propensity to affect the terminal ileum more than other parts of the intestine?
- a) Celiac disease
  - b) Crohn's disease
  - c) Ulcerative colitis
  - d) Whipple disease
31. Which of the following regarding Budd Chiari Syndrome (BCS) is true?
- a) Ascites is rarely seen in BCS.
  - b) Commonest presentation of BCS is acute
  - c) Most common treatment for chronic BCS with adequate hepatic reserve is surgical shunt
  - d) Transjugular Intrahepatic Portosystemic Shunt (TIPS) can be easily done in BCS
32. Which of the following regarding pyogenic liver abscess [PLA] is true?
- a) Treatment should include percutaneous or surgical drainage in absence of contraindications
  - b) In 10% of cases no obvious cause of infection can be identified
  - c) Culture of fluid from pyogenic liver abscesses reveal mono-microbial etiology
  - d) Staph. aureus is the commonest organism





33. In which part of the large bowel do most colorectal cancers occur?
- Ascending colon and rectum
  - Descending colon and rectum
  - Sigmoid colon and rectum
  - Transverse colon and rectum
34. Acute fatty liver of pregnancy (AFLP) is characterized by all **EXCEPT**:
- AFLP is a disease of early pregnancy
  - An example of mitochondrial hepatopathy
  - Liver biopsy demonstrates diffuse/perivenular microvesicular steatosis
  - Renal failure, hyperuricemia and leukocytosis are commonly observed
35. A patient with *Helicobacter pylori* is to be treated with quadruple therapy that includes tetracycline, metronidazole, and omeprazole. What is the usual fourth drug added to this regimen?
- Amoxicillin
  - Bismuth
  - Levofloxacin
  - Penicillin
36. Which of the following is true regarding gastric intubation in cases with upper gastrointestinal bleeding?
- Determines whether the bleeding is arterial or venous
  - Rarely changes the management of a patient with upper GI bleeding
  - To gauge the rate of bleeding
  - To prevent aspiration
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37. Which of the following statements regarding spontaneous bacterial peritonitis (SBP) is true?
- Gram stain is a useful diagnostic test
  - Neutrophil count is usually in hundreds in SBP and in thousands in Secondary BP
  - Occurs in 5-10% of cirrhotic hospitalised patients
  - SBP is confirmed by positive bacterial culture of the ascitic fluid and ascitic fluid neutrophil count of  $>500$  cells/mm<sup>3</sup>



- 38.A 72-year-old male has an esophagogastroduodenoscopy (EGD) done and has a gastric ulcer. Which of the following statements is true for repeat EGD?
- Should be done after 6-8 weeks
  - Should be done in 1 year
  - Should be done only if immunohistochemistry for *Helicobacter pylori* is negative
  - Should be done only if symptoms do not resolve with proton pump inhibitor therapy
39. Which of the following is not commonly recommended in the workup of suspected *C difficile* infection?
- Polymerase chain reaction (PCR)
  - Serum creatinine measurement
  - Stool testing in asymptomatic patients
  - White blood cell count
40. Which of the following maneuvers has the highest risk of bleeding?
- Capsule endoscopy
  - Diagnostic endoscopy with biopsy
  - Endoscopic ultrasonography
  - Polypectomy

### III-Short notes (70 marks)

Give a short account on:

- Clinical presentation of Wilson disease? (20 marks)
- Complications of Crohn's disease? (20 marks)
- Management of Barrett's esophagus? (15 marks)
- Management of *H. pylori*? (15 marks)

**BEST WISHES**

Exam committee:

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