

Tanta University

Faculty of Medicine

Department of Tropical Medicine & Infectious diseases

October 5, 2013

Master & Diploma Examination

Number of Questions: 3

Time Allowed: 3 Hours

Total: 50 Marks



## Hepatology & GIT

### All questions must be answered

#### I. Case scenario: (10 marks)

A 33-year-old man who has undergone renal transplantation is on maintenance immunosuppression with cyclosporine, azathioprine, and prednisone. He frequently travels to Africa and is interested in receiving hepatitis A vaccination. His physical examination is otherwise normal. Results of laboratory studies are as follows: alanine aminotransferase (ALT), 15 U/L; bilirubin, 1.0 mg/dL; albumin, 3.5 g/dL; international normalized ratio (INR), 0.9; hepatitis B surface antigen (HBsAg), negative; antibody to hepatitis B core antigen (anti-HBc), negative; and antibody to hepatitis C virus (anti-HCV), positive.

**Which of the following is true regarding the use of hepatitis A vaccine in this patient? Why?**

1. He should be vaccinated because it is safe and he may mount a protective antibody response.
2. He should not be vaccinated because he has chronic hepatitis C and vaccination could precipitate liver failure.
3. He should not be vaccinated because the vaccine is ineffective in immuno-suppressed patients.
4. He does not need to be vaccinated because he is not likely to be exposed to hepatitis A.

#### II. MCQs: (15 marks)

1. In chronic HCV infection, higher viral load levels are associated with:
  - a. Higher indication for antiviral therapy
  - b. Higher grade & stage of liver disease
  - c. Higher progression of the liver disease
  - d. None of the above
2. HCC is not associated with:
  - a. Liver cirrhosis
  - b.  $\alpha_1$  antitrypsin deficiency
  - c. HAV infection
  - d. Haemochromatosis
  - e. Androgen and estrogen ingestion
3. In cases with constipation alternating with diarrhea, what do you do first?
  - a. Refer for surgical inspection.
  - b. Digital rectal exam.
  - c. Colonoscopy.
  - d. Barium enema.

4. What is MELD score?
  - a. Choose the method of interventional treatment of HCC.
  - b. Define priority for liver transplantation.
  - c. For preoperative evaluation.
  - d. Prognostic score.
  
5. Small HCC with portal vein thrombosis, jaundice, and ascites can be treated with:
  - a. Radio Frequency ablation.
  - b. Best supportive care.
  - c. TACE.
  - d. Microwave ablation.
  
6. Chronic pancreatitis may be reliably diagnosed in a patient presenting with:
  - a. Calcification in the pancreas detected on a flat plate x-ray of the abdomen
  - b. Abdominal pain
  - c. Diarrhea
  - d. Nausea and vomiting
  - e. Jaundice
  
7. Which clinical or laboratory finding is most consistently seen in malabsorption syndromes:
  - a. Hypercalcemia
  - b. Iron overload
  - c. Elevated zinc levels in serum
  - d. Normal small bowel biopsy
  - e. Steatorrhea
  
8. Which of the following is seen most commonly in association with primary biliary cirrhosis (PBC):
  - a. Positive antinuclear antibody (ANA)
  - b. Increased ceruloplasmin
  - c. Increased ferritin
  - d. Positive hepatitis B surface antigen
  - e. Positive antimitochondrial antibody
  
9. A 58-year-old white man presents to your office with a history of losing 15 Kg in the last 3 months. In the past month, he has had substernal chest pain and dysphagia for solid foods. For 35 years, he has had heartburn at least 3 times per week. He used to take bicarbonate for relief of his heartburn. What is the most likely diagnosis in this patient?
  - a. Erosive esophagitis
  - b. Esophageal ulcer
  - c. Pill esophagitis
  - d. Esophageal adenocarcinoma
  - e. Benign esophageal stricture
  
10. The treatment of choice of spontaneous bacterial empyema in cirrhotic patient is:
  - a. Chest tube and third generation cephalosporins.
  - b. Ampicillin plus aminoglycosides.
  - c. Third generation cephalosporins.
  - d. No empirical antibiotic treatment until pleural fluid culture positivity.
  - e. Chest tube and ampicillin plus aminoglycosides.

11. Which of the following clinical symptoms compose the clinical triad in patients with Budd-Chiari Syndrome?
- Abdominal pain, jaundice, hepatomegaly.
  - Abdominal pain, ascites, hepatomegaly.
  - Abdominal pain, anorexia, Ascites.
  - Ascites, jaundice, hepatomegaly.
  - All of the above.
12. In chronic HCV infection, AST & ALT levels are important determinants of:
- Indication for antiviral therapy
  - Underlying pathology
  - Response to antiviral viral therapy
  - None of the above
13. The following precipitates hepatic encephalopathy except :
- Laparoscopic cholecystectomy
  - Urinary tract infection
  - Acetaminophen 2gm per day for back pain
  - Variceal bleeding
14. Which of the following is considered the most accepted mechanism of action of lactulose in patients with hepatic encephalopathy?
- Elimination of bacteria
  - Acidification of the colon
  - Promotion of lactobacillus
  - Inhibition of bacterial amino acid metabolism
15. The commonest isolated organism in cases of SBP is:
- Staphylococcus aureus
  - Streptococcus milleri
  - E. coli
  - Bacteroides fragilis
  - Salmonella typhi

**III. Answer the following questions: (25 marks)**

- Discuss in short: Causes of esophageal dysphagia. (5 marks)
- Write short notes about: Management of refractory ascites. (5 marks)
- Mention: Causes, clinical picture, diagnosis & treatment of acute pancreatitis. (5 marks)
- Write short essay about: HEELP syndrome. (5 marks)
- Enumerate: Causes of high and causes of low serum alkaline phosphatase. (5 marks)

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October 9, 2013

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## Infectious & Endemic Diseases

### All questions must be answered

#### **I. Case scenario:** (10 marks)

A 62-year-old woman presents to the emergency department with a high fever, weakness, and malaise. She denies vomiting, dysuria, cough, or diarrhea. She has been receiving a six week course of antibiotics at home for osteomyelitis of her left foot. Her semi-permanent intravenous line in her arm has not been replaced for the past three weeks.

Her temperature is 38 C, blood pressure is 150/80 mm Hg, pulse is 96/minute, and respirations are 16/minute. She has a pansystolic murmur heard best over the left fifth intercostal space, in the midclavicular line. Her lungs are clear and her abdominal examination is normal. Her fingernails show small longitudinal splinter-type lesions. The skin at the intravenous site looks normal.

A chest x-ray film showed no effusion.

Laboratory studies show: Hemoglobin= 12.2g/dL, Hematocrit= 35.3 %, White blood cell count (WBC)= 16,100/mm<sup>3</sup>, Platelets= 283,000/mm<sup>3</sup>.

Urine is negative for blood, protein, nitrites, and leukocyte esterase.

**What is the most likely diagnosis? Confirm your diagnosis?**

#### **II. MCQs:** (15 marks)

- Which of the following is true about Koplik's spots?
  - Are diagnostic of Measles
  - Located opposite the incisor teeth
  - Only appear when fever is over 39°C
  - They appear as red papules on the palmar surface of the hands
  - Typically appear two days after the rash
- Clinical features of toxoplasmosis include the following except:
  - Microcephaly
  - Choroidoretinitis
  - Cervical lymphadenopathy
  - Mouth ulcers
  - Generalised lymphadenopathy
- As regard Falciparum malaria the only false statement is:
  - Acute infection is not associated with splenomegaly
  - Is associated with periodic fever in a minority of cases
  - Has an incubation period of 8-15 days
  - May present as a gastroenteritis
  - May be treated with quinine

4. The following are not characteristic features of acute hepatitis B except:
- Most patients present with splenomegaly.
  - It confers immunity to hepatitis A.
  - There is increased infectivity in the presence of the E antigen.
  - Pruritis is an important early symptom.
5. Subcutaneous nodules are a typical finding in except:
- Neurofibromatosis
  - Cysticercosis
  - Onchocerciasis
  - Trichinosis
6. The followings may present with fever and diarrhea except:
- Malaria
  - Entamoeba coli
  - Dengue
  - Campylobacter enteritis
  - Brucellosis
7. As regard Hepatitis A, the following are true except:
- The virus has a single stranded RNA
  - The incubation period is 2-6 weeks
  - Is usually acquired by consumption of faecally contaminated food or water
  - Is maximally infectious at the peak of jaundice
  - Can be prevented by active immunisation
8. What is the most common cause of vitamin B12 malabsorption?
- Pancreatic insufficiency
  - Bacterial overgrowth syndrome
  - Crohn's disease involving the terminal ileum
  - Pernicious anaemia
  - Ileal resection
9. Treatment of pseudomembranous colitis includes all the following except:
- Oral metronidazole
  - Intravenous vancomycin
  - Oral vancomycin
  - Probiotics
10. The correct Nomenclature of the following fatty acid is:

Methyl  
-CH<sub>3</sub>

Carboxyl  
-COOH

- a. 18:3 ω-6
  - b. 18:2 ω-6
  - c. 18:2 ω-9
  - d. 18:4 ω-6
11. Which nematode does not have pulmonary infiltrate with eosinophilia in the acute stage?
- a. Hookworms
  - b. Ascaris
  - c. Enterobius
  - d. Strongyloides
12. Microcytic hypochromic anemias include the following except:
- a. Iron deficiency anemia
  - b. Anemia of chronic disorders
  - c. Spherocytosis
  - d. Sideroblastic anemia
  - e. Thalassemia
13. All hemolytic anemias cause splenomegaly and can be improved with splenectomy except :
- a. Sickle cell anemia
  - b. G6PD deficiency
  - c. Thalassemia
  - d. Spherocytosis
14. As regard Hookworm, the following statements are wrong except:
- a. Is usually spread by the faeco-oral route
  - b. Is usually diagnosed by microscopy of adhesive tape prints taken from the perianal area
  - c. May block the pancreatic duct causing pancreatitis
  - d. The eggs of *Necator americanus* and *Ancylostoma duodenale* are indistinguishable on light microscopy.
  - e. Commonly causes diarrhoea in non-immunes
15. Enteric fever is characterized by the followings except:
- a. Bone marrow culture increases diagnostic yield in those previously given antibiotics.
  - b. Is zoonotic
  - c. Leucocytosis would be against a diagnosis of typhoid
  - d. The incubation period is usually 7-21 days.
  - e. Rose spots occur in typhoid but not paratyphoid fever

**III. Answer the following questions: (25 marks)**

1. Discuss in short: Travelers' diarrhea. (5 marks)
2. Enumerate: Common causes of aseptic meningitis. (5 marks)
3. Write short notes on: Resistant typhoid. (5 marks)
4. Mention: Management of Toxoplasmosis in pregnancy. (5 marks)
5. Write short essay about: Nutritional anemias. (5 marks)