



Tropical Medicine and Infectious Diseases Department قسم طب المناطق الحارة والأمراض المعدية  
Faculty of Medicine - Tanta University

Master Degree examination in: Tropical Medicine & Infectious diseases  
Date: 22/11/ 2020 Time Allowed: Three hours  
Number of questions: Three Total Assessment Marks: 270 Marks

الورقة الثانية

### Infectious and Endemic Diseases

All questions must be answered

#### I) Case scenario

(60 marks)

A 26-year-old man presents to the outpatient department with fever of 39–40°C, headache, lethargy and muscle aches for five days. Today he has vomited three times and is complaining of abdominal pain. He also noticed some bleeding from his gums after brushing his teeth this morning. He is normally fit and well and has returned from Saudi Arabia one month ago.

Clinical Findings: On examination, the patient looks lethargic but has a Glasgow coma scale (GCS) of 15/15. His temperature is 37.5°C, blood pressure is 94/68 mmHg, pulse 88 bpm and the respiratory rate is 20 breath cycles per minute. There is a maculopapular rash on the chest, abdomen and extremities. Cardiovascular and respiratory examination are normal. There is mild abdominal tenderness and the liver edge is palpable, bowel sounds are normal. The spleen is not enlarged and there is no palpable lymphadenopathy.

Laboratory Findings revealed thrombocytopenia & high liver enzymes.

1. What is the most probable diagnosis? (20 marks)
2. What is the causative organism? (20 marks)
3. What are the investigations needed? (20 marks)

#### II) MCQ

(80 marks) (2 marks each)

Choose the **single** best answer

1- Short incubation period, rice water stool and copious watery diarrhea are the hallmark of infection by this organism?

- A. Clostridium difficile
- B. Entamoeba histolytica
- C. Escherichia Coli
- D. Vibrio cholera



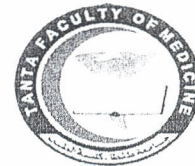
- 2- A patient with acute lymphocytic leukemia with fever and neutropenia develops diarrhea after amoxicillin therapy, which of the following organisms is most likely to be the cause?
- A. Clostridium difficile
  - B. Escherichia Coli
  - C. Salmonella typhi
  - D. Shigella flexneri
- 3- Which of the following is a special feature of the rabies vaccine?
- A. Is only given as a pre-exposure vaccine
  - B. The modern rabies vaccine harvested from infected human diploid cells
  - C. The original killed vaccine was air- dried spinal cord of infected rabbits
  - D. The vaccine is given by injection of 16 doses into the peritoneal cavity
- 4- A patient with prolonged diarrhea undergoes esophagogastroduodenoscopy. Biopsy of the small intestine demonstrates numerous crescent-shaped protozoa adjacent to the epithelial brush border. Which of the following organisms is the most likely pathogen?
- A. Entamoeba histolytica
  - B. Escherichia coli
  - C. Giardia Lamblia
  - D. Naegleria fowleri
- 5- Which of the following **DOES NOT** occur in infectious mononucleosis?
- A. Atypical lymphocytosis
  - B. Jaundice
  - C. Presentation commonly before the age of 30
  - D. Thrombocytosis
- 6- All the following are positive CT findings of COVID-19 infection **EXCEPT:**
- A. Ground-glass opacities.
  - B. Involvement of multiple lobes
  - C. Pleural effusion
  - D. Sub pleural or peripheral distribution



- 7- Mode of transmission of yaws is:
- A. Congenital transmission
  - B. Mosquito bite
  - C. Skin contact with an infected person, in the absence of cuts and abrasions
  - D. Skin contact with an infected person, in the presence of cuts and abrasions
- 8- As regards food borne trematode infections. Man is a reservoir host for?
- A. Fasciola
  - B. Heterophes Heterophes
  - C. Paragonimus westermani
- 9- A 29 year- old woman develops severe vomiting four hours after having lunch at a restaurant. What is the most likely causative organism?
- A. Campylobacter
  - B. E- Coli
  - C. Shigella
  - D. Staphylococcus aureus
- 10- Which of the following statement is **NOT CORRECT** about a chronic typhoid carrier?
- A. He is a symptomatic
  - B. He is diagnosed by stool culture
  - C. He should be treated with ciprofloxacin for 10 days
  - D. He should not serve food to others or work as a food handler
- 11- Water lily sign is a characteristic sign for which of the following?
- A. Amebic liver abscess
  - B. Hepatocellular carcinoma
  - C. Hydatid disease
  - D. Pyogenic liver abscess
- 12- An increased risk of cholangiocarcinoma has been documented in patients with?
- A. Clonorchis Sinensis
  - B. Fasciola hepatica
  - C. Metagonimus yokagawi



- 13- Which of the following infections can cause abdominal pain that greatly mimics appendicitis?
- A. Amoebiasis
  - B. Norovirus
  - C. Rotavirus
  - D. Yersinia enterocolitica
- 14- From which of the following can Bacillus anthracis be contracted?
- A. Animal skins
  - B. Blood
  - C. Brain
  - D. Colon
- 15- Glomerulonephritis in leptospirosis infection includes all of the following **EXCEPT?**
- A. Direct toxic effect of leptospira bacteria on kidney tubules
  - B. Hyperkalemia occurs early due to proximal convoluted tubule involvement
  - C. Interstitial nephritis and tubular necrosis are present
  - D. Involvement of the liver and muscles
- 16- Which of the following statements is correct regarding brucellosis?
- A. Caused by gram positive bacilli
  - B. It is a contagious disease
  - C. The blood picture is diagnostic
  - D. Treated with antibiotic combinations for 41 days at least
- 17- Which antibiotic can be used for meningococcal chemoprophylaxis?
- A. Ciprofloxacin
  - B. Gentamycin
  - C. Moxifloxacin
  - D. Penicillin
- 18- Does not produce an exotoxin as a virulence factor?
- A. Campylobacter
  - B. E. coli 0157 / H 7
  - C. Salmonella
  - D. Shigella



- 19- Which of the following enzymes is responsible for processing HIV proteins during the production of new viruses?
- A. Integrase
  - B. Protease
  - C. Reverse transcriptase
  - D. DNA polymerase
- 20- Which of the following is the most common cause of visceral larva migrans?
- A. Giardiasis
  - B. *Strongyloides stercoralis*
  - C. *Toxocara canis*
- 21- Which of the following is the most common form of plague which causes swelling of the lymph nodes?
- A. Bubonic plague
  - B. Pneumonic plague
  - C. Septicemic plague
- 22- Which of the following is not true regarding suppressive prophylaxis of malaria?
- A. Chloroquine, proguanil, mefloquine and doxycycline can be used
  - B. Given intramuscularly monthly
  - C. Kills the parasites inside RBCs
  - D. Prevents binding of the parasite to RBCs by blocking calcium signal
- 23- Airborne spread is important in the transmission of which of the following?
- A. Hepatitis E
  - B. Poliomyelitis
  - C. Tuberculosis
  - D. Typhoid fever
- 24- Which of the following **IS NOT** a recognized cause of eosinophilia?
- A. Drug hypersensitivity
  - B. Hydatid disease
  - C. Visceral larva migrans
  - D. Visceral leishmaniasis



- 25- Which of the following pathogens is the most common cause of SBE?
- A. *Candida albicans*
  - B. *Enterococcus faecalis*
  - C. *Staphylococcus epidermidis*
  - D. *Streptococcus viridans*
- 26- Which of the following regarding amoebic liver abscess is true?
- A. Is associated with eosinophilia
  - B. Should be aspirated routinely
  - C. Should be treated by diloxanide furoate alone
  - D. Usually affects the right lobe of the liver
- 27- Which of the following commonly causes painful genital ulcers?
- A. Chancroid
  - B. Granuloma inguinale
  - C. Lymphogranuloma venereum
  - D. Yaws
- 28- Which is the strain of avian flu that can spread from birds to humans?
- A. H1N1
  - B. H1N5
  - C. H5N1
  - D. H5N5
- 29- The sexual life cycle of *Toxoplasma gondii* occurs only in the definitive host. Which of these is the definitive host?
- A. Cats
  - B. Mammals (including humans)
  - C. Rodents
  - D. Various strains of birds
- 30- Faget's sign is one of diagnostic signs of which disease?
- A. Dengue fever
  - B. Malaria
  - C. Rift valley fever
  - D. Yellow fever



- 31- Onchocerca nodules occur mainly in:
- A. Around the eye
  - B. On the palms of the hands
  - C. Over bony prominences
  - D. On the face
- 32- Which of the following infections has the longest incubation period?
- A. Dengue
  - B. Falciparum malaria
  - C. Hepatitis B
  - D. Plague
- 33- Which statement is **FALSE** regarding hookworm infections?
- A. Eggs of Necator americanus and Ancylostoma duodenal are indistinguishable by light microscopy
  - B. May rarely become complicated by pancreatitis
  - C. Soil transmitted helminths
  - D. Usually cause traveler's diarrhea
- 34- Epstein Barr virus is associated with which of these malignancies?
- A. Burkitt's lymphoma
  - B. Carcinoma of the cervix
  - C. Cholangiocarcinoma
  - D. Kaposi's sarcoma
- 35- Concerning African trypanosomiasis
- A. It has an incubation period of 4-6 months
  - B. It may cause erythema chronicum migrans
  - C. The Gambian form can be treated with pentamidine
  - D. The Gambian form is associated with a more prominent chancre



- 36- All are true concerning viral hemorrhagic fevers (VHF) **EXCEPT?**
- A. All VHFs have protective vaccines
  - B. Any patient presenting with fever or bleeding within 21 of leaving an endemic area should be suspected of having VHF
  - C. Congo-Crimean VHF is the type that occurs in Iraq
  - D. Suspected or confirmed cases of VHF are usually managed in usual hospital wards
- 37- A 27 years old woman develops fever and lymph node swelling after being scratched by her cat. Which of the following organisms is responsible for cat scratch disease?
- A. Bartonella henselae
  - B. Bordetella pertussis
  - C. Francisella tularensis
  - D. Moraxella catarrhalis
- 38- In lepromatous leprosy which is true?
- A. Leonine facies is common
  - B. Neuropathy occurs before skin lesions
  - C. Skin lesions are typically anaesthetic
  - D. Skin lesions are typically symmetrical
- 39- What is the first line antibiotic in the treatment of Shigella dysentery?
- A. Ciprofloxacin
  - B. Flucloxacillin
  - C. Metronidazole
  - D. Vancomycin
- 40- A 24 years old man presents with 3 days history of painful ulcers on the penis and dysuria. He has had similar previous episodes. A clinical diagnosis of primary genital herpes is made. What is the most appropriate management?
- A. No treatment indicated
  - B. Oral acyclovir
  - C. Topical famciclovir
  - D. Topical valaciclovir





III Short notes (130 marks) :

- 1- Diet control in fatty liver? (30 marks)
- 2- Traveler's diarrhea definition and causes? (30 marks)
- 3- Diagnosis of Kala Azar? (30 marks)
- 4- Management of cerebral malaria? (40 marks)

**BEST WISHES**

Exam committee:

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