

### **Case 1**

A 19-year-old college student presents to the clinic with a 5-day history of fever, severe sore throat, and swollen neck glands. He reports feeling extremely fatigued and has lost his appetite. On examination, he has bilateral tender cervical lymphadenopathy, pharyngitis, and mild splenomegaly.

**Questions:**

**What is the most possible diagnosis?**

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**Which virus is most likely responsible for this presentation?**

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**What is the virus receptor on B lymphocytes?**

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**Mention 2 diagnostic tests for this disease?**

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### **Case 2**

A 35-year-old male with a known history of HIV infection (diagnosed 8 years ago, poorly adherent to antiretroviral therapy) presents with progressive weight loss, chronic diarrhea, and persistent generalized lymphadenopathy. He also reports blurry vision and floaters in his right eye. On fundoscopic examination, you notice retinal hemorrhages and exudates.

**Questions:**

**A. Which opportunistic viral infection could explain his visual symptoms?**

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**B. What is the diagnostic histological finding associated with this virus in infected tissues?**

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**C. Besides the visual symptoms, name two other clinical manifestations this virus can cause in AIDS patients.**

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A female from Al nikhela province near Assiut had unilateral leg swelling with non-pitting edema, previous attacks of fever, lymphangitis in the swollen leg. CBC showed eosinophilia. Stained smears were examined microscopically. A moderate number of sheathed microfilariae 200-300x7  $\mu$  are revealed which contain numerous nuclei. Anterior end rounded, posterior end pointed and has no nuclei

1-What is the diagnosis of this patient? (half mark)

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2-what is the causative parasite? (half mark)

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3-Mention one laboratory test to confirm the diagnosis? (half mark)

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A 32-years-old female had fever, fatigue, muscle aches, lymphadenopathy, and hepatosplenomegaly. A woman had a pet cat .The blood picture showed lymphocytosis, the doctor asked for bone marrow specimen which showed a banana shaped structure, 4-5  $\mu$ , has a pointed dark end and a broader paler one in stained smears.

1. what is the patient's diagnosis?

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2. what is the causative parasite?

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3. mention 2 modes of infection and the infective stage of each.

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Define hemostasis.

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Mention the 3 steps of hemostasis.

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**Two morphological changes occur during erythropoiesis (1 mark)**

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**Three differences between neutrophil and monocyte (1.5 marks)**

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**Give causes of vascular spasm after injury.**

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**What is platelet adhesion?**

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**List 3 substances released from platelet granules.**

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**What is thromboxane A<sub>2</sub> function.**

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**1. Enumerate THREE advantages of low molecular weight heparin (LMWH) over unfractionated heparin?**

a) -----

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b) -----

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c) -----

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**2. Explain the mechanism of action of the following drugs:**

- Unfractionated Heparin (UFH): -----

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- Low molecular weight Heparin (LMWH) : -----

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- Warfarin: -----

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- Dabigatran: -----

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- Lepirudin: -----

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- Rivaroxaban: -----

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- Alteplase: -----

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- Aspirin: -----

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- Abciximab: -----

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- Clopidogrel: -----

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- Dipyridamole: -----

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**3. Enumerate FOUR therapeutic uses of Heparin.**

a) -----

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b) -----

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c) -----

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d) -----

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**4. Enumerate FOUR adverse effects of Heparin.**

a) -----

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b) -----

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c) -----

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d) -----

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**5. Enumerate FOUR therapeutic uses of Warfarin.**

- a) -----  
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- b) -----  
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- c) -----  
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- d) -----  
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**6. Enumerate FOUR adverse effects of Warfarin.**

- a) -----  
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- b) -----  
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- c) -----  
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- d) -----  
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**7- In a table, compare FIVE aspects between Heparin and Warfarin**

	Heparin	Warfarin
1.		
2.		
3.		
4.		
5.		

**8- Mention FOUR clinical uses of antiplatelet drugs:**

a) -----

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b) -----

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c) -----

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d) -----

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**9- Enumerate FOUR agents used in management of bleeding disorders.**

a) -----

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b) -----

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c) -----

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d) -----

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**10. Enumerate FOUR therapeutic uses of AMINOCAPROIC ACID.**

a) -----

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b) -----

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c) -----

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d) -----

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**END of Questions**