Blood immunology case study lab

Business

Unit 10: Blood/Immunology Case Study Lab What were your three diagnoses? Case 1: Bacterial or viral infection Case 2: Normal blood smear Case 3: Normal blood smear Journal Questions for lab In what ways do normal red and white blood cells differ? White blood cells have a nucleus, red blood cells do not, white blood cells protect while red blood cells transport, red blood cells have a longer life span than white blood cells. Which type of white blood cell would you expect to be most common in a normal blood smear?

In a normal blood smear, one would expect to find more neutrophil cells. A differential count of white blood cells from a patient gave the absolute number of lymphocytes as 8000 per mm3 and the total number of white blood cells as 12, 000 per mm3.

Calculate the percentage of lymphocytes in this sample of white blood cells. Is this a normal or abnormal percentage? Explain your answer. Percentage of lymphocytes in WBC= 8000/12000 100= 66. 67%, the normal values of lymphocytes in blood is 20%-40%.

So this would be an abnormal percentage. Describe the difference between a communicable disease and an inherited disease.

Use examples you have studied in this exploration to support your description. A communicable disease is a disease that is transmitted from person to person; for example, malaria. An inherited disease is a disease that is passed through genetics; for example, sickle cell anemia. Why are white blood cells in a stained blood smear usually counted at low power under a microscope?

Explain your answer. They are counted at low power because they are much bigger than all other blood cells. If you try to count them on high power, you have to keep moving the slide and will likely lose count or get confused.

On low power, the other cells are much less visible and you will get a broader picture of the white cells which it makes it easier to get an accurate count.
Why is the presence of a larger than normal number of neutrophils indicative of an infection?

Explain your answer. Neutrophils are your body’s response to an infection. When a body detects any foreign activity, such as an infection, it begins to produce abundant amounts of neutrophils to destroy the foreign activity. Why would you not expect to see tissue macrophages in a blood smear? Explain your answer.

Because as the question stated, macrophages reside in the tissue. Tissues are not in blood so they would not appear on the blood smear unless one took tissue along with the blood.