

PathMD™: Board Review Letter

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Peripheral Blood – Part 2

Volume 1, Number 14

1. The peripheral blood smear illustrated in Case #1 on the website is from a young girl with recurrent infections. What is the most likely diagnosis:
 - A. Chediak-Higashi
 - B. May-Hegglin Anomaly
 - C. Dohle bodies
 - D. Myelodysplasia
 - E. CML
2. A 44 y/o male presents to the ED with fever and shortness of breath. The peripheral blood smear illustrated in Case #2 on the website represents which of the following:
 - A. Rouleaux formation
 - B. Cold agglutinins
 - C. Artifact
 - D. Polycythemia vera
 - E. None of the above
3. Which of the following is the most likely explanation of the findings in the previous question:
 - A. Anti-I secondary to *mycoplasma pneumoniae*
 - B. Anti-I secondary to EBV
 - C. Anti-i secondary to *mycoplasma pneumoniae*
 - D. Anti-i secondary to EBV
 - E. IgG production by a plasma cell dyscrasia
4. Which of the following is the best description of “Bart’s hemoglobin”?
 - A. $-\alpha/-\alpha$
 - B. $--/\alpha\alpha$
 - C. $-\alpha/--$
 - D. $--/--$
 - E. $-\alpha/\alpha\alpha$
5. The blood smear illustrated in Case #3 on the website is from a 13 y/o African American patient. Which of the following is the best diagnosis:
 - A. HbSS
 - B. HbSC
 - C. HbCC
 - D. HbEE
 - E. None of the above
6. The cell illustrated in the image for Case #4 on the website is best characterized as:
 - A. Myeloblast
 - B. Promyelocyte
 - C. Myelocyte
 - D. Metamyelocyte
 - E. Normoblast
7. The cell illustrated in the image for Case #5 on the website is best characterized as:
 - A. Myeloblast
 - B. Promyelocyte
 - C. Myelocyte
 - D. Metamyelocyte
 - E. Normoblast

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8. What is the approximate frequency of the sickle cell gene among the African American population?
 - A. 21%
 - B. 9%
 - C. 3%
 - D. 1%
 - E. None of the above

9. A 35 y/o black woman with a Hb-5.2, MCV-63, and MCHC-28.2. A peripheral smear is reviewed and representative images are illustrated in Case #6 on the website. The best diagnosis is:
 - A. Thalassemia
 - B. Iron Deficiency Anemia
 - C. Thrombotic Thrombocytopenia Purpura
 - D. Hemolytic Uremic Syndrome
 - E. Disseminated Intravascular Coagulation

10. A test using brilliant crystal blue and then evaluating blood smears at 10 minutes, 1 hour, and then 4 hours is used to evaluate for which of the following?
 - A. Reticulocytes
 - B. HbS
 - C. HbC_{Harlem}
 - D. HbD
 - E. HbH

11. All of the following are associated with a heterogeneous staining pattern in an acid elution test for fetal hemoglobin EXCEPT:
 - A. Fetal-maternal hemorrhage
 - B. Thalassemia
 - C. Normal newborn
 - D. Hereditary persistence of HbF

Notes for question set:¹

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