

# PathMD™: Board Review Letter

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Peripheral Blood – Part 4

Volume 1, Number 44

Case #1 A 3 year old male is found to have “immature” cells in the peripheral blood that are myeloperoxidase negative. Flow cytometry is performed. Based on the findings, what is the best diagnosis?

- A. Precursor T cell ALL
- B. Precursor B cell ALL
- C. Acute myelogenous leukemia with monocytic differentiation
- D. Anaplastic Large Cell Lymphoma
- E. None of the above

Case #2 Abnormal lymphoid cells are identified in the blood of a 65 year old male. Flow cytometry is performed. Based on the findings, what is the best diagnosis?

- A. Follicular Lymphoma – Peripheralized
- B. CLL/SLL
- C. Mantle Cell Lymphoma
- D. Precursor B Cell ALL
- E. Marginal zone lymphoma

Case #3 A 60 year old Japanese male presents with abnormal clover-leaf appearing lymphoid cells in the peripheral blood. Flow cytometry is performed. Based on the findings, what is the best diagnosis?

- A. Precursor T cell ALL
- B. Angioimmunoblastic T cell lymphoma
- C. Anaplastic large cell lymphoma
- D. Diffuse large B-cell lymphoma
- E. Adult T cell leukemia/lymphoma

Case #4 A 45 year old woman presents to the ED with shortness of breath. A CBC was performed and the peripheral blood smear is shown. Based on the findings, what will the patient most likely be found to have?

- A. M-spike on SPEP
- B. Anti-I antibody
- C. Anti-i antibody
- D. Positive DAT with IgG and complement
- E. Positive monospot test

Case #5 The blood smear in this patient comes from a 21 year old male with a mother who has hereditary elliptocytosis. What is the most likely diagnosis?

- A. Thermal injury
- B. Hereditary pyropoikilocytosis
- C. Microangiopathic hemolytic anemia
- D. Disseminated intravascular coagulation
- E. None of the above

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Case #6 The image shown is from a 40 year old female who had a routine CBC, which showed thrombocytopenia (60K). Which of the following best explains her abnormalities?

- A. Bernard Soulier Disease
- B. Chediak-Higashi
- C. Acute infection
- D. May Hegglin Anomaly
- E. Erhlichia infection

Question #1 Tests for hemoglobin solubility are most useful in which of the following situations?

- A. Distinguishing HbD from HbS
- B. Distinguishing HbC<sub>Harlem</sub> from HbS
- C. Diagnosing sickle cell trait
- D. Differentiating a thalassemia from a hemoglobinopathy
- E. None of the above

Question #2 When considering hemoglobin electrophoresis on cellulose acetate at pH 8.4, which of the following is the correct order of Hb migration from the cathode towards the anode?

- A. A F S C
- B. C S A F
- C. S C A F
- D. S C F A
- E. C S F A