Pathology Quiz

An 18 year old man was found to have hypochromic microcytic anaemia with haemoglobin of 10 gm/dl. In addition the peripheral smear showed a fair degree of anisocytosis, poikilocytosis and targeting. The total WBC count was 9500/cmm, platelet count 240,000/cmm and reticulocyte count 4%. The spleen was palpable 5 cm below costal margin.

1. Which of the following is the most likely diagnosis?
   A. Sickle cell trait
   B. Thalassaemia trait
   C. Haemoglobin S-C disease
   D. Iron deficiency anaemia
   E. Hereditary spherocytosis

2. Which of the following would be most helpful in distinguishing this case from one of pure iron deficiency anaemia?
   A. Peripheral blood smear
   B. Osmotic fragility test
   C. Ham test
   D. Haemoglobin electrophoresis on paper
   E. Serum iron estimation

3. What would you expect to find in this case on Haemoglobin electrophoresis?
   A. An increased amount of fetal or A2 haemoglobin
   B. Increased osmotic fragility of the red cells
   C. Absent bone marrow iron
   D. Increased macroglobulins in the serum
   E. Small amounts of S haemoglobin

4. The present treatment for this patient would be
   A. Splenectomy
   B. Removal of the abnormal haemoglobin pigment
   C. Purely supportive
   D. Oral iron therapy
   E. Plasmapharesis

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