

Haematology Questions

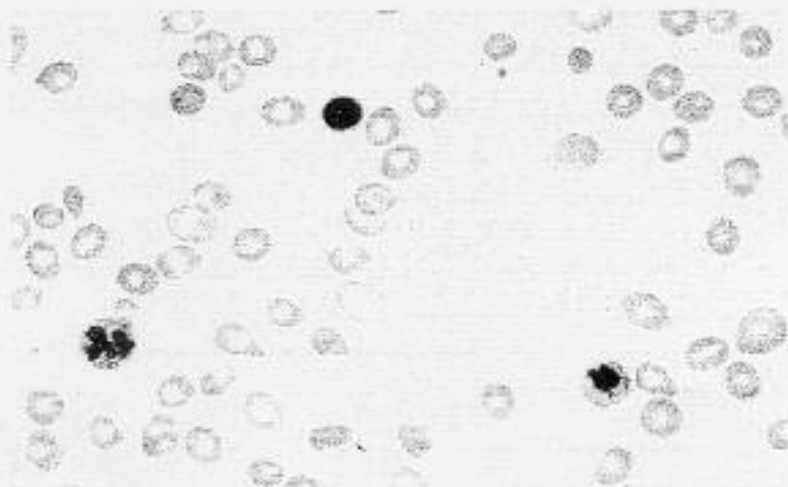
1. A 60 year old man is about to undergo an elective cholecystectomy. A routine FBE preoperatively reveals a white cell count of 16 with a lymphocyte count of 11. He is asymptomatic. What is the next most appropriate step?

- A. Immunophenotyping
- B. Bone marrow aspirate and trephine
- C. EBV serology
- D. CT chest/abdo/pelvis
- E. Cytogenetics

2. 65 year old man with chronic obstructive pulmonary disease and osteoarthritis is brought into hospital by his family with a 12 hour history of confusion and fever. His current medications include piroxicam and salbutamol. FBE is performed. Hb 77g/l. WCC - 4.5 Platelet 19 INR/APTT normal. D-dimer normal. Fibrinogen - normal. Creatinine - 0.17 mmol/l (Normal <0.11 mmol/l) LDH 560 (normal < 250) A blood film shows fragmented red cells. What is the most likely diagnosis?

- A. DIC
- B. Piroxicam toxicity
- C. TTP
- D. Gram negative septicaemia
- E. Leptospirosis

3. A 60 year old woman presents complaining of lethargy. Full blood examination reveals Hb 67g/l, platelets 98 (N>180), reticulocyte count 4 (N <1.6%), MCV 128 (N <88). The blood film shows hypersegmentation of some neutrophils.



What is the most likely diagnosis?

- A. Evan's syndrome
- B. Pernicious anaemia
- C. Aplastic anaemia
- D. Alcohol abuse
- E. Hypothyroidism

4. A 27 year old woman from Vietnam is being investigated for abnormal menstrual bleeding. Her investigations reveal the following:

Hb 110g/l
MCV 60 (N 85-100)
MCHC 30 (N 35g/dl of RBC)
MCH 26 (N 30 g/dl)
RCC 5.3 (N 5.2 million/microlitre)
HbA2 – normal
HbF – Normal
HbH – Present
Hb electrophoresis – normal
Iron – low
Ferritin – low normal
Transferrin – low normal

Most likely diagnosis?

- A. Early iron deficiency
 - B. Homozygous alpha thalassemia
 - C. Sideroblastic anaemia
 - D. Sickle cell anaemia
 - E. Beta thalassemia
5. A couple approach you for genetic counseling. They are both carriers of thalassemia and are wanting to have a child. Which phenotype would result in the least severe manifestation in the child?

- A. Mother Alpha 0 Father Alpha 0
- B. Mother HbE Father Beta +
- C. Mother Alpha + Father Beta +
- D. Mother Beta + Father Beta +
- E. Mother Alpha + Father Alpha +

6. A 44 year old man presents to hospital with hematemesis and melena. Emergency gastroscopy reveals a bleeding duodenal ulcer which responds well to sclerotherapy. His haemoglobin on arrival is 6.0 g/dl. Whilst being transfused his third unit of packed cells he becomes hypotensive, sweaty and develops rigors. In the absence of ABO and minor antigen incompatibility, what is the likely cause?

- A. Citrate toxicity
- B. Reaction of plasticiser in bag
- C. Acute electrolyte imbalance
- D. Bacterial contamination of blood
- E. Graft versus host disease reaction

7. 50 year old man previously well, presents with recent onset of bruising and has developed a large thigh haematoma. No significant past medical history and no family history of bleeding. Investigations reveal an INR of 0.9 (N <1.0), APTT 43 (N <35)

inhibitor VIII
lupus
exclude hepatitis

and the APTT partially corrects with the addition of normal plasma. Haemoglobin 115 g/dl. What is the most likely cause of this mans bruising?

? bleeding clotting.

- A. Haemophilia A
- B. Haemophilia B
- C. Antiphospholipid syndrome
- * D. Acquired factor VIII deficiency
- E. Von Willebrands disease

8. What will be the most unreliable pro-coagulant to measure in the presence of extensive thrombus?

- A. Factor V Leiden X
- B. Lupus anticoagulant
- C. Antithrombin III X
- D. APTT
- * E. Thrombin

9. A 27 year old man presents with a first episode of a spontaneous DVT. No obvious precipitants. What is the most likely mechanism?

- A. Antithrombin III deficiency
- B. Protein C deficiency
- C. Protein S deficiency
- * D. Factor V Leiden mutation
- E. Prothrombin gene mutation 20210

10. An 80 year old man presents with headaches. Fundoscopy reveals flame shaped haemorrhages. An IgM paraprotein band is found and quantitative analysis reveals a grossly elevated level, consistent with a hyperviscosity syndrome. What would be the best management for this man?

- A. Plasmaphoresis
- B. Cyclophosphamide
- C. CHOP
- * D. Melphalan and prednisolone
- E. ATRA

Waldenström's
= fludarabine
= chlorambucil.

11. In stem cell allogeneic transplants, what is the least important factor in the development of graft versus host disease?

- * A. ABO incompatibility
- B. T cell depletion of the graft
- C. Age of recipient
- D. HLA mismatch
- E. Age of recipient

12. What would confer the greatest risk of bleeding with thrombolysis?

- * A. Open cholecystectomy two weeks ago

- B. Menstruation ✕
- C. Recurrent severe dyspepsia
- D. Ischaemic stroke 8 weeks ago ✕
- E. Tooth extraction 7 days ago

13. 32 year old woman recently emigrated from India, breast feeding her third child, complains of tiredness and frequent chest infections. Physical examination reveals signs of anaemia. She denies any haematemesis or melena. An FBE reveals a haemoglobin of 60 g/dl, white cell count of 8.6 and platelet count of 388. MCV is 68. A blood film is reported as showing a hypochromic microcytic picture. Which lab test would most help contribute to the diagnosis?

- A. Reduced HbA2
- B. Reduced serum ferritin
- C. Reduced serum iron
- D. Negative haemosiderin in urine
- E. Increased serum transferrin