Problem Based Learning 1

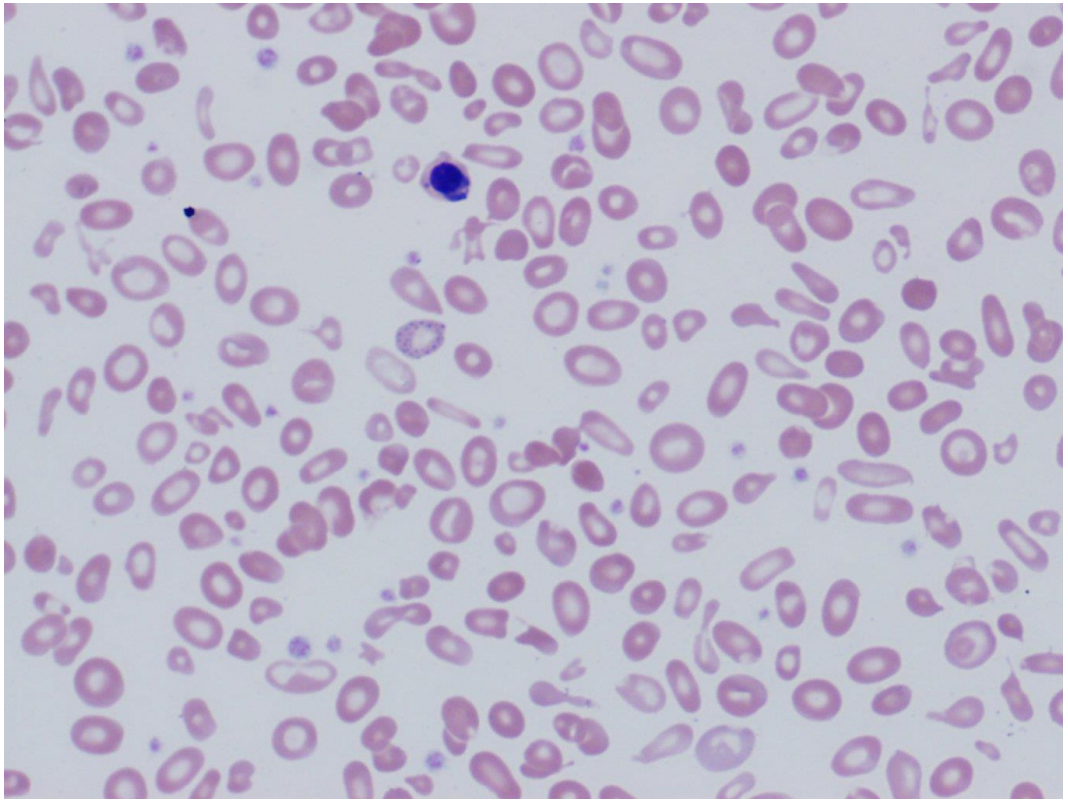
Feras Fararjeh MD

08-11.10.2023

Case 1

- A 12-year-old male is requiring blood transfusion on regular basis since the age of 10 months. He received 1 unit every 3-4 weeks on regular basis. He has family history of similar conditions.

Case 1





Case 2

- A 9-year-old girl presents with bleeding gums and bruises. The symptoms are recurrent. She also has episodes of nose bleeds. She has an older brother who has similar symptoms.

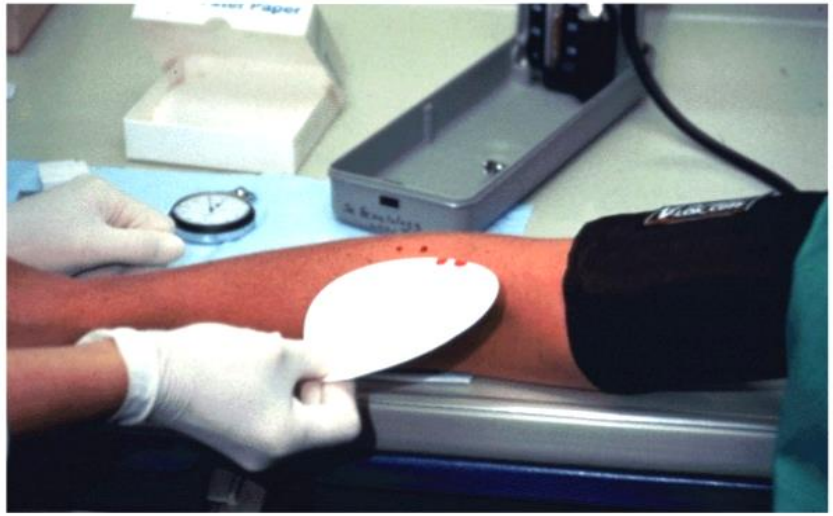
- She was assessed by her primary care doctor who is referring her to haematology department.

Case 2





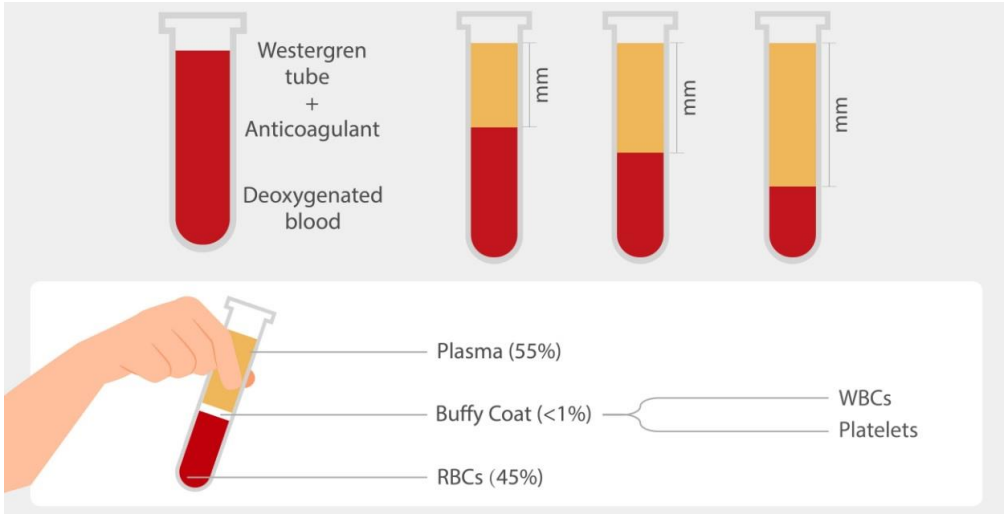


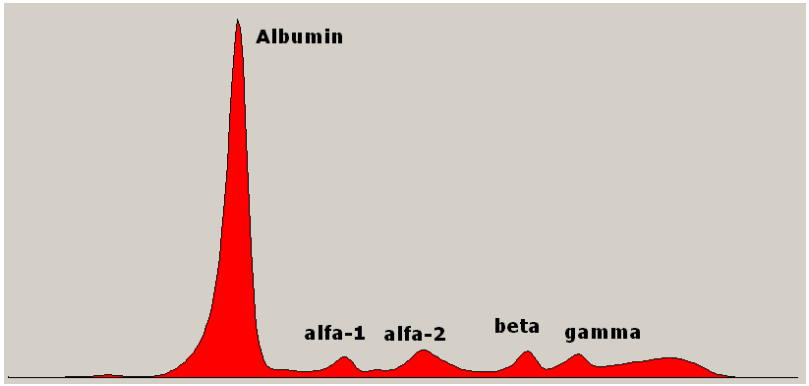


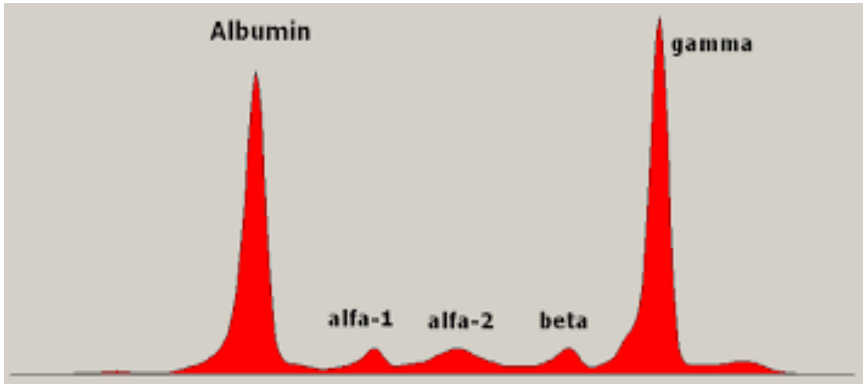
Case 3

- A 68-year-old male is presented with back pain for the last 3 months. The pain is located in the lower part and is worsening over the last few weeks. He has hypertension which is controlled on 2 medications. You find him pale by examination but he has no motor or sensory weakness in his legs. Blood tests show anaemia with high ESR.

Case 3


Westergren tube + Anticoagulant
Deoxygenated blood
mm
mm
mm
Plasma (55%)
Buffy Coat (<1%)
WBCs
Platelets
RBCs (45%)


Albumin
alfa-1
alfa-2
beta
gamma


Albumin
gamma
alfa-1
alfa-2
beta

Case 4

- A 24 year old male. Presents with new onset yellowish discoloration of sclera with exertional fatigue and shortness of breath. Urine is very dark. Patient was normal before attack. He had fava bean 1 day before onset of symptoms.

Case 4

- Findings:

Pallor

Jaundice (yellowish discoloration)

Abnormal red cells on blood film



Case 5

- A 20 year old female college student presents with acute pain in the back, shoulder and extremities. She reports this is not the first time; attacks are more frequent in cold and stressful conditions.
- On a previous occasion, she was admitted with respiratory symptoms and had her blood exchanged.

Case 5

- Findings:

Pallor

Jaundice

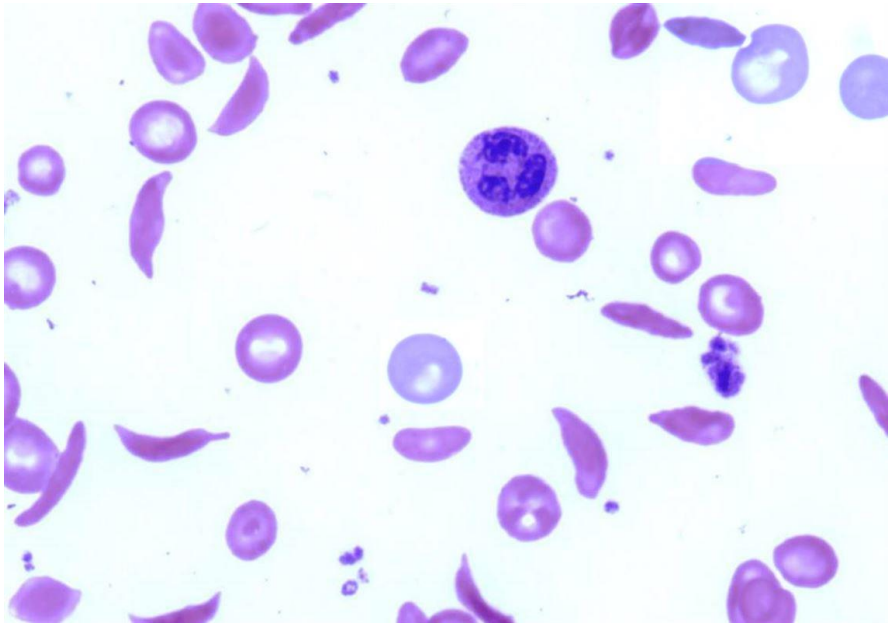
Underweight

Skeletal abnormalities (medullary and epiphyseal infarction, dactylitis, marrow hyperplasia)

Leg ulcers

Abnormal red cells on blood film

Case 5





Case 6

- A 29 year old housewife presents with exertional fatigue, shortness of breath and palpitations. This started few months ago but is progressive. She had 3 complete pregnancies in the last 5 years. Her menstrual blood loss is heavy. She has no bleeding or infective symptoms. Her diet sounds balanced and she has no nausea, vomiting or altered bowel habits.

Case 6

- Findings:

Pallor

Hair loss

Koilonychia

Angular stomatitis

Abnormal red cells on blood film

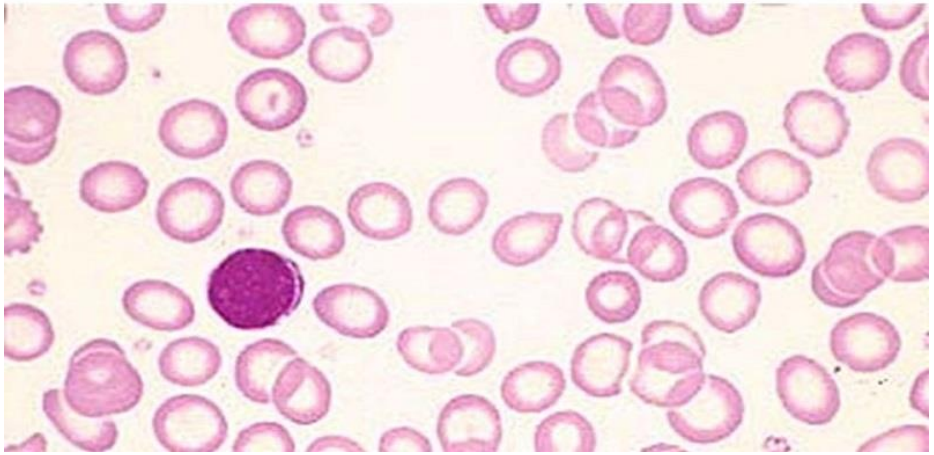
Case 6







Hypochromic Microcytic Anemia (iron deficiency)



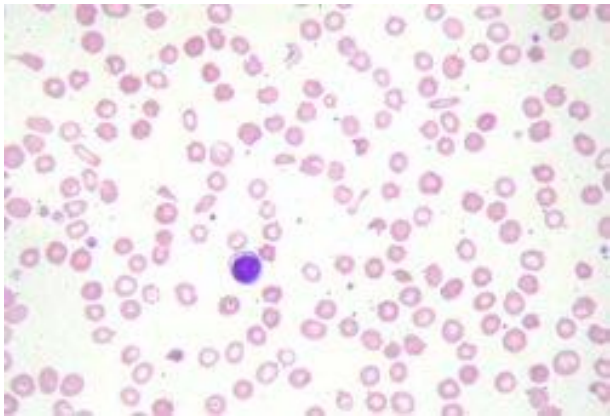
Case 7

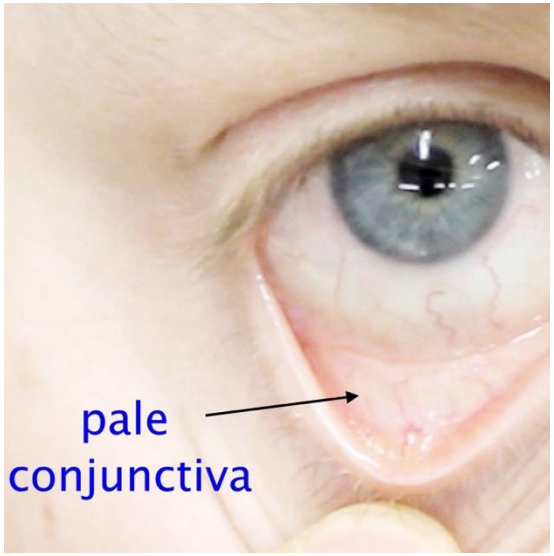
- A 62 year old retired engineer. He has new symptoms of exertional fatigue and shortness of breath. This started around 2 months ago. He also noticed a change in his bowel habits recently and thinks he is losing weight.
- He is not vegetarian and his diet sounds balanced.

Case 7

- Findings:

Pallor





What is the next thing to do?

Case 8

- A 42 year old female with history of surgery done 10 years ago for morbid obesity (gastric by pass) presents with exertional fatigue and shortness of breath. She reports some mental sluggishness and inability to walk normally. Her family think she is becoming depressed and more forgetful. She is not attending her scheduled clinic visits and not taking her prescribed medications.

Case 8

- Findings:

Pallor

Mild jaundice

Symmetric pareasthesias/numbness

Shuffling gait

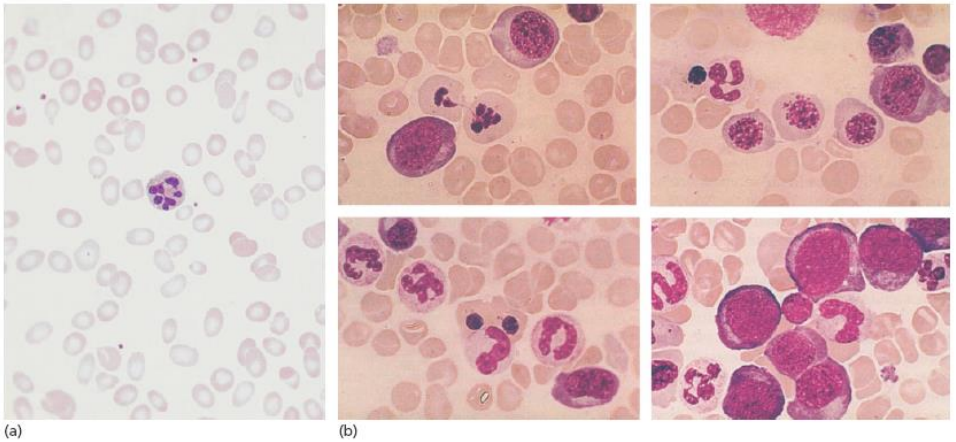


Figure 5.4 Severe megaloblastic anaemia: (a) peripheral blood; (b) bone marrow.

What is the next thing to do?

Case 9

- A 64 year old lady presents with acute onset of symptoms that started one week ago:

- Fatigue
- Palpitations
- Shortness of breath
- Fever
- Cough with sputum
- Gum bleeding
- Skin bruising

No previous episodes and no family history of similar conditions

Case 9

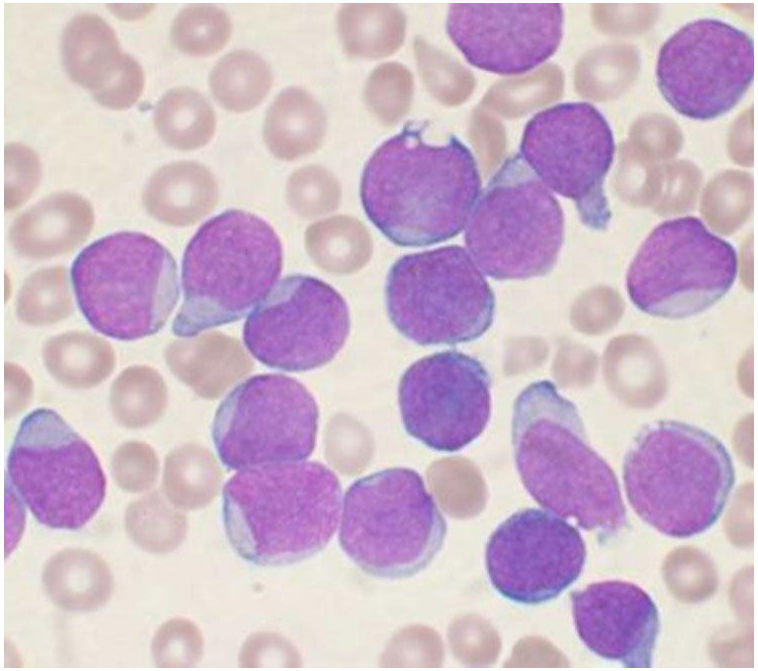
- Findings:

- Pale
- Documented fever
- Skin bleeding (Ecchymosis, petechial rash)
- Abnormal blood film and bone marrow
- Bone marrow is hypercellular and replaced by abnormal cells

Case 9







Thank you