

# Leukemia

**MCQs**

• A 65-year-old woman who is currently receiving chemotherapy for acute myeloid leukaemia is found on blood testing to have urea of 10.1 mmol/L ( n 2.5-7.1 ), creatinine of 190 micro mol/L ( n 70-133); potassium of 6.1 mmol/L (n 3.5-5), phosphate of 8.5 mg/dl\_ ( n 3.4-4.5) and corrected calcium of 2.00 mmol/L(n 2.15-2.55). The patient is asymptomatic. Her electrolyte levels were normal prior to the start of treatment. What is the most likely SINGLE (ONE) cause of this electrolyte disturbance?

Select one:

- a. **Tumour lysis syndrome**
- b. Hypovolaemia
- c. Haemolytic uraemic syndrome
- d. Neutropenic sepsis
- e. Disease progression

• Huge splenomegaly is a characteristic physical sign in only One of the following. Select one:

- a. Iron deficiency anemia.
- b. Pernicious anemia.
- c. Idiopathic (immune) thrombocytopenia.
- d. Multiple Myeloma.
- e. **chronic myeloid leukemia**

• Philadelphia chromosome is a characteristic finding in one of the following. Select one:

- a. Acute myeloblastic leukemia.
- b. **Chronic myeloid leukemia.**
- c. Chronic lymphocytic leukemia.
- d. Hodgkins lymphoma
- e. Non Hodgkins lymphomas.

• Which leukemia typically is associated with DIC:

- a. M1
- b. M2
- c. **M3**
- d. M4
- e. M5

**M3 (also known as acute promyelocytic leukemia or APL).**

**APL (AML-M3) is characterized by a specific genetic translocation (t(15;17)) that results in the fusion gene PML-RARA.**

- All cause erythema nodosa except :  
TB - OCP - beta hemolytic strep – leukemia , RA

- One of the following does not metastasize to the CNS:

**A. ALL**

Answer: AML is the leukemia that metastasizes to the CNS.

- All of the following are true about chronic myeloid leukemia (CML), except:

a. It is a disease of middle aged which could present with constitutional symptoms

**b. The laboratory finding usually show leukocytosis, with left shift and high leucocyte alkaline phosphatase.**

c. It is characterized by specific translocation between chromosomes 9, 22 (Philadelphia chromosome)

d. Possible treatment for CML include; imatinib ??? and allogenic BMT

e. CML could transfer to AML or ALL

Answer: B (low Leucocyte alkaline phosphatase).

- A 65-year-old man with progressive pancytopenia is referred for evaluation. On examination, there is splenomegaly. Bone marrow aspirate demonstrated no dysplasia but decreased cellularity. Which diagnosis is most likely:

a. Aplastic anemia

b. Megaloblastic anemia

c. Myelodysplasia

**d. Hairy cell leukemia**

- Bilateral hilar lymph nodes enlargement occurs commonly in all the following Except.

a- pulmonary Tuberculosis **b- chronic myeloid leukemia** c- non-Hodgkins lymphoma d- Hodgkin lymphoma e- sarcoidosis

- A 71-year-old woman with no significant past medical history is investigated for generalized tiredness. She has recently lost 7 Kg in weight.

The following blood results are obtained.

Hb: 9.8 g/ dl, platelets:  $104 \times 10^9/L$ , WBC:  $70 \times 10^9/L$

Blood film: small mature lymphocytosis, smudge cell seen, no abnormal (blast) cells.

ONE of the following is most likely diagnosis.

a- chronic myeloid leukemia

**b- chronic lymphocytic leukemia**

c- acute myeloid leukemia

d- acute lymphoblastic leukemia

e- aplastic anemia

• Philadelphia chromosome is seen in 90-95 % of patients in ONE of the following.

a- chronic lymphocytic leukemia

**b- chronic myloid leukemia\*\*\*\*\***

c- polycythemia rubra vera

d- essential thrombocythemia

e- myelodysplastic syndrome

• A 54-year-old male with acute lymphocytic leukemia develops a blast crisis. He is treated with intensive systemic chemotherapy. Following treatment, the patient will be at increased risk for the development of ONE of the following.

a- bile pigment gallstones

b- cholesterol gallstones

c- cystine kidney stones

d- struvite kidney stones

**e- uric acid kidney stones\*\*\*\*\***

• Cml incorrct :

**Smudge cells**

Philadelphia chromosome

Tyrosine kinase inhibitors

Increased wbc with shift to the left

Massive splenomegaly

• Wrong about CML :

-Philadelphia chromosome translocation

**-Smudge cell**

• Which finding is not frequently found in Chronic Myelogenous Leukemia (CML)?

a. Elevated WBCs

b. Elevated vitamin B12 level

c. Elevated LDH

**d. Translocation between chromosomes 9 and 14**

e. Increased uric acid level

• CASE : low platelet count , WBC count 30000 , 50% blast ?

**AML , M3 type**

- Auer rods are found in which one of the following?

a- AML

b- ALL

c- CLL

d- CML

e- Sickle cell anaemia

- Doesn't cause lymphadenopathy ;

CML , brucellosis ( e5taf el 3olama2 😊 )

- Wrong about CLL :

Disease of children

- wrong regarding CLL :

It is disease of adults

- smudge cells seen in :

CLL

- Patient with pancytopenia, splenic vein thrombosis, and ???.

Diagnosis is: A. Promyelocytic???

- tumor lysis syndrome causes all but which of the following :

hypercalcemia

- Wrong about diagnosis of ALL:

A. Lumbar puncture

- Worst prognosis in a patient diagnosed with ALL is with the following at the presentation:

A. Neurological involvement

B. Philadelphia chromosome

C. Male

D. Age

Answer: Increasing age\ Philadelphia chromosome\ WBC >30,000