



#### **Pathology**

﴿ وَقُل رَّبِّ أَدْخِلْنِي مُدْخَلَ صِدْقِ وَأَخْرِجْنِي مُخْرَجَ صِدْقِ وَٱجْعَل لِّي مِن لَّدُنكَ سُلْطَنَا نَصِيرًا ﴾

MID | Lectures (1-4)

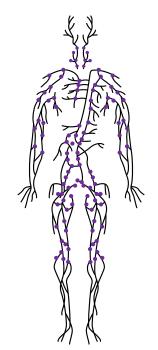
ربنا آتنا من لدنك رحمة وهيئ لنا من أمرنا رشدًا

## Past Papers

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قبل ما تبلشوا احكوا بسم الله، واحمدوا ربنا على نعمة الصحة والعافية

{ الحمد لله الذي عافانا مما ابتلي به غيرنا وفضّلنا على كثير ممن خلق تفضيلا }

## POLYCYTHEMIA

Q1: One of the following is incorrect about polycythemia vera:

- A) JAK2 mutation
- B) Reversible polycythemia
- C) Splenomegaly
- D) Aquagenic pruritus
- E) Leukocytosis

Q2: Absolute polycythemia can be caused by:

- A) Diarrhea
- B) Diuretic drugs
- C) Vomiting
- D) Carcinoma in renal

Q3: All of the following is true about polycythemia Vera except:

- A) Splenomegaly is common
- B) basophilia
- C) High altitude
- D) Chronic disease

### ANEMIA OF BLOOD LOSS

#### Q1: All the following are symptoms of anemia except:

- A) Redness of the skin
- B) Tachycardia
- C) Headache
- D) Fatigue
- E) Red urine

Q2: Which of the following doesn't appear when acute blood occurs

- A) Reticulocytopenia
- B) Early hypotension
- C) High erythropoietin

Q3: A 62-year-old male, presented with microcytic hypochromic anemia, which of the following is the most common cause of the condition

- A) GI bleeding
- B) Malabsorption
- C) Acute trauma
- D) CKD

Q 4: A guy with Chest Stab came to the hospital, his lab findings regarding his RBCs are

- A) Normocytic, normochromic
- B) Macrocytic, normochromic
- C) Microcytic, normochromic
- D) Microcytic, hypochromic

Q4: A patient has hemorrhage, he loses 1.5 L of blood, when his blood is tested

- A) Normocytic, normochromic
- B) Macrocytic, normochromic
- C) Microcytic, normochromic
- D) Microcytic, hypochromic

#### Q5: Reticulocyte count is used to differentiate between

- A) Microcytic and macrocytic
- B) Hemolysis anemia and normocytic anemia
- C) Anemia of hemorrhage and anemia Of bone marrow failure
- D) Iron deficiency anemia and thalassemia

Q6: A 14-year-old girl who has a traumatic accident, and she was hospitalized. Her hematocrit level was low even after blood transfusion, which of the following will appear after 7 days

- A) Leukocytosis
- B) Decrease EPO
- C) Reticulocytosis
- D) Anisocytosis

# ANEMIA OF LOW PRODUCTION & HEMOLYTIC ANEMIA

## Q1. Which of the following are NOT characteristic of iron deficiency anemia?

- A) Low reticulocyte hemoglobin content
- B) Low mean cell volume
- C) Absent Perl's staining pattern
- D) Low total iron binding capacity
- E) Can be caused by liver disease

#### Q2: Which of the following causes pancytopenia:

- A) Immune hemolytic anemia
- B) Thalassemia
- C) Iron deficiency anemia
- D) Hereditary spherocytosis
- E) B12 deficiency

#### Q3: Which one of the following is NOT a cause of vitamin B12 deficiency?

- A) Jejunal resection.
- B) Gastrectomy
- C) Malabsorption.
- D) Veganism.
- E) Lack of gastric intrinsic factor

#### Q4. Not a definite effect of vitamin b12 deficiency?

- A) Pernicious anemia
- B) Megaloblastic anemia
- C) Sterility
- D) Neuropathy
- E) Macrocytic hypochromic

Ans: E macrocytic and normochromic

#### Q5: What happens in patients with IDA?

- A) Platelets ↑ + TIBC ↑
- B) Platelets  $\downarrow$  + TIBC  $\downarrow$
- C) Platelets ↑ + TIBC ↓

Ans: A
Total iron binding capacity
increases because transferrin
increase to maximize iron
transport

#### Q6. Which of the following is NOT characteristic of megaloblastic anemia?

- A. Macroovalocytes
- B. Chronic course of disease
- C. Can be caused by strict vegan diet
- D. Loss of proprioception
- E. Severely high bilirubin level

Q7. A patient present with headache, dizziness, and nail spooning, what is your next step?

- A) Iron studies
- B) Hepcidin level
- C) Electrophoresis
- D) Bone marrow biopsy

## Q8. Which of the following is NOT an expected finding in a patient with iron deficiency anemia

- A)Koilonychia (spoon nails)
- B) Angular stomatitis
- C) Hypochromic microcytic red blood cells
- D) Pallor
- E) Symmetric paresthesia in lower limbs.

Ans: E; seen in b12 deficiency NOT IDA

Q9. Recent research showed that patients with marked obesity have increased levels of IL-6 in blood that is mainly secreted from adipose tissue which results in anemia. Which of the following is an expected finding?

- A) Absent haptoglobin level
- B) High erythropoietin level
- C) High reticulocyte count
- D) Low total iron binding capacity
- E) The presence of gall bladder stones.

Q10. Which of the following is MOST likely to be required by a A five-year-old boy with CKD (chronic kidney disease)?

A)Oprelvekin (IL-11)

- B) Cyanocobalamin
- C) Erythropoietin
- D) Deferoxamine
- E) Filgrastim (G-cSF).

#### Q11. Chronic alcoholism is a risk factor for:

- A) Megaloblastic anemia
- B) Iron deficiency anemia
- C) Aplastic anemia
- D) Immune hemolytic anemia
- E) Myelodysplastic syndrome

#### Q12. Which of the following is wrong about hepcidin?

- A) It is increased in iron overload.
- B) It decreases with inflammation.
- C) It decreases iron absorption.

Q13. Chronic disease anemia (anemia of chronic inflammation) is caused primarily by elevated levels of:

- A) Hepcidin
- B) Iron
- C) Transferrin
- D) Erythropoietin
- E) Ferritin

Q14. Which of the following can't be seen in a patient of pure red cell aplasia:

- A) Skin rash and Arthralgia
- B) Normocytic anemia.
- C) Reticulocytopenia

#### Q15. Chronic alcoholism is a risk factor for:

- A. Megaloblastic anemia
- B. Iron deficiency anemia
- C. Aplastic anemia
- D. Immune hemolytic anemia

#### Q16. which of the following is true about Folic acid deficiency:

- A. Acute blood loss
- B. Chronic blood loss
- C. Chronic hemolysis
- D. Chronic-inflammation

#### Q17. G6PD Mediterranean is characterized by:

- A) Reduced stability of the enzyme.
- B) Reduced expression, stability, and activity of the enzyme.
- C) Reduced activity of the enzyme.
- D) Reduced expression of the enzyme.
- E) Reduced stability and activity of the enzyme.

Q18. G6PD deficiency class 2 (Mediterranean) produce enzyme with:

- A) More activity
- B) Less stability
- C) Less activity
- D) B+C

#### Q19. Which of the following is wrong about G6PD deficiency?

A) GSH is normally maintained in the reduced form by Glutathione reductase.

- B) G6PD gene is located on the X chromosome.
- C) G6PD deficiency is mainly caused by large deletions.

#### Q20. Wrong about PNH:

- A) Thrombosis is common.
- B) Splenomegaly
- C) Mutation in PIGA gene.
- D) CD55 and CD59 are deficient

## Q21. Which of the following pairs is correctly associated with the presence of spherocytes?

- A) Methyldopa Spherocytosis
- B) Iron deficiency anemia Spherocytosis
- C) Thalassemia Spherocytosis
- D) Sickle cell anemia Spherocytosis
- E) Megaloblastic anemia Spherocytosis

## Q22. All of the following describe Anemia associated with lymphoma except:

- A. increase in IgM
- B. Treatment with methotroxate
- C. Aplastic crisis
- D. megaloplastic anemia

#### Q23. Which of the following disease can be treated by splenectomy:

- A. hereditary sphereocytosis
- B. sickle cell
- C. PNH
- D. Aplastic anemia

#### Q24. All of the following have a large macrocytic RBCs except:

- A. Hypothyroidism
- B. Myelodysplastic syndrome
- C. Treatment by Alpha methyl dopa
- D. Alcoholism

#### Q25. in which of the following disease does folate deficiency occur:

- A. iron deficiency
- B. acute hemorrhage
- C. chronic GI bleeding
- D. Chronic hemolytic anemia

#### Q26. One of the following is caused by direct trauma to RBCs:

- A) Schistosytes
- B) Echinocytes
- C) Spherocytes
- D) Elliptocytes
- E) Stomatocytes

#### Q27. One of the following is wrong about aplastic anemia:

- A) Splenomegaly
- B) Macrocytic anemia
- C) Due to drug exposure
- D) Absence of hematopoietic stem cells in BM
- E) Pancytopenia in peripheral blood

#### Q28. One of the following causes macrocytic anemia:

- A) Methotrexate therapy
- B) Chronic inflammation
- C) IDA
- D) Presence of schistocytes

Q29. Which of the following doesn't appear when acute blood loss occurs?

- A) Reticulocytopenia
- B) early hypotension
- C) High erythropoietin

#### الحمد لله

اللهم إني أستودعك ما قرأت وما حفظت وما تعلمت، فرده إلي عند حاجتي إليه، إنك على كل شيء قدير اللهم أدخلني مدخل صدق، وأخرجني مخرج صدق، واجعل لي من لدنك سلطانًا نصيرًا ربِّ اشرح لي صدري، ويسر لي أمري، واحلل عقدة لساني، يفقهوا قولي، باسم الله الفتاح

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#### Corrections from previous versions:

Versions	Slide # and Place of Error	Before Correction	After Correction
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V1 → V2			