

Hematology Block

Revision Questions for the First week



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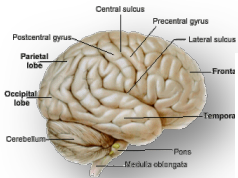
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Anatomy:

Anatomy of Pancreas & Biliary System

1-Descendants of totipotent cells and differentiate into cells of 3 germ layers the description for ?

- A. -Multipotent
- B. -Pluripotent
- C. -Unipotent

Answer: B

2-the four transcription factor that could induce pluripotency?

- A. SOX2
- B. c-MY3
- C. -KLFc

Answer: A

3-which cell type is found in mature body tissues as well as the umbilical cord and placenta after birth.

- A. -Adult stem cells
- B. -Induced Pluripotent Stem Cell
- C. -Embryonic Stem Cell

Answer: A



Physiology :

Reticuloendothelial System and Spleen

Q1: The Reticular cells found in all of the following except:

- A: spleen
- B: lymph nodes
- C: thymus
- D: bone marrow

A: c

Q2: The promonocyte and mature monocytes will stay in the circulation for:

- A: 10-20 hours
- B: 10-20 days
- C: 20-30 hours
- D: 20-30 days

A: a

Q3: In which way the RES perform its indirect immune function:

- A: Phagocytosis
- B: processing antigen and antibodies production
- C: Breakdown of aging RBC
- D: all of them are correct.

A: b

Q4: all of the following consider as lymphoid organs except:

- A: thymus
- B: bone marrow
- C: lymph nodes
- D: spleen

A: B

Q5: In case of hemorrhagic shock which of the following organs will hold a reserve of blood:

- A: Liver

B: bone marrow

C: kidney

D: spleen

A: d

Q6: Reservoir of lymphocytes is a function of which part of the spleen:

A: red pulp

B: white pulp

C: capsule

D: venous sinuous.

A: b



Biochemistry :

Hemoglobin

1) which one of the following is an abnormal type of Hemoglobin that seen in smokers ?

- A- CarboxyHb
- B- Hb F
- C- Hb Met

"A"

2) which one of the following is true : A Hb molecule contains heme groups , and Dimers

:

- A- 2,4
- B- 4,4
- C- 4,2

"C"

3) which one is the " R-form of Hb " ?

- A- deoxy form of Hb
- B- high Oxygen affinity
- C- taut - form

"B"

4) Binding of O₂ to one heme group O₂ affinity of others ?

- A- Increase
- B- Decrease
- C- no effect

"A"

5) Low P₅₀ indicate Unloading of O₂ which result in ?

- A- fast , O₂ delivered to tissue
- B- slow , CO₂ delivered to tissue
- C- fast , O₂ delivered to lung

"A"

6) which one of the following Increase the affinity of Hb to O₂ "Lift-shifted"?

- A- Increase DGP

B- Decrease pH
C- Increase pH
"C"

G6PD

All of these statements are uses of NADPH except ?

- A. -Reductive biosynthesis e.g., fatty acid biosynthesis
- B. -Antioxidant (part of glutathione system)
- C. -Oxygen-dependent phagocytosis by WBCs
- D. -Synthesis of glucose

Ans:D

The Hydrogen peroxide is convert to water by ?

- A. catalase
- B. glutathione reductase
- C. glutathione peroxidase
- D. G6PD

Ans: A&B

Moderate, young RBCs , Contain enzymatic activity, Unstable enzyme, but Kinetically normal , represent ?

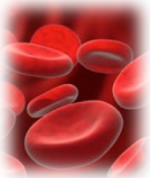
- A. G6PD Mediterranean (II)
- B. G6PD A- (class III)
- C. G6PD A- (class IV)
- D. G6PD A- (class I)

Ans: b

The function of G6PD is ?

- A. convert the G6P to 6 phosphate gluconate
- B. produce NADPH
- C. produce NADP
- D. oxidative stress

Ans: a&b



Hematology :

Hb and thalassemea

1) which one is wrong about Quantitative measurements of the normal human haemoglobins at 1 year of age are as follows:

- A. HbBarts = (4-5 %)
- B. Hb A₂=(2.5-3.5%)
- C. Hb F = (less than 1.5%)

"A"

2) After birth, site of Hb formation is ?

- A. Liver and spleen
- B. Bone marrow
- C. Yolk sac

"B"

3) which one is true regarding the dominant globin chain present in embryonic life?

- A. Zitta & gamma
- B. Alpha & beta
- C. Zitta & epsilon

"C"

4) which chromosome carried the gene that responsible for synthesis of alpha globin and the defect will be ?

- A. Chr. 11 , a- thalassemea
- B. Chr. 16 , a-thalassemea
- C. Chr 16 , b-thalassemea

"B"

5) which of the following is the correct number of amino acids that make the betta chain ?

- A. 146
- B. 141
- C. 145

"A"

Anemia

Which one of these cells are no responsible for synthesis of hemoglobin ?

- A. erythroblast
- B. reticulocyte
- C. erythrocyte
- D. intermediate normoblast

Ans: c

Which on of these clinical features are related to compensatory mechanism ?

- A. fatigue
- B. pallor
- C. headache
- D. Angina

Ans: D

The storage forms of the iron in the body is ?

- A. ferritin
- B. haemosiderin
- C. transferrin
- D. ferrous

Ans: a&b

All of these factors are favoring to iron absorption except ?

- A. hepcidin
- B. -sugar
- C. acid
- D. haem iron

Ans: a

Normochromic normocytic anemia caused by ?

- A. -release of iron from iron stores
- B. rises of hepcidin
- C. Iron replacement
- D. Erythropoietin

Ans : a&b

In iron deficiency, serum Fe is:

- A- Increased
- B- Decreased
- C- Normal

Ans: b

Iron absorption is favored by:

- A- Ferrous iron salts
- B- Ferric iron salts
- C- Alkalines
- D- Tannates

Ans: A

In latent Iron deficiency, the iron stores are:

- A- Normal
- B- Increased
- C- Absent

Ans: c

4- We can consider an adult male anemic if the HB concentration is below:

- A- 13.5gm/dl
- B- 11gm/dl
- C- 11.5gm/dl

Ans: A

Haemaglobinopathies

The main laboratory features of intravascular haemolysis are?

- A. -Haemoglobinaemia
- B. haemoglobinuria
- C. urobilinogen
- D. streconilinogen

Ans: A&B

tooth like projections on the surface of RBCs ?

- A. acanthocytosis
- B. spherocytosis
- C. elliptocytosis
- D. -stomatocytosis

Ans: A

What is the main cause of intravascular hemolysis?

- A- Mismatched blood transfusion.
- B- Liver or renal disease.
- C- Hypersensitive RBCs.
- D- Infections.

Ans:a

Where can we find open mouth cell appearance?

- A- Elliptocytosis.
- B- Stomatocytosis.
- C- Spherocytosis
- D- Acanthocytosis.

Ans: B

Elliptocytosis:

- A- Ball-like cells.
- B- Cigar-like cells.
- C- Open-mouth cells.

Ans: B

Indication for Blood Transfusion in Sickle Cell Anaemia is ?

- A. Overwhelming infections
- B. Strokes and CNS manifestation
- C. Pulmonary infarcts with infection
- D. Priapism

Ans: A

The Molecular pathology of sickle cell anaemia is ?

- A. change in the DNA coding for the amino acid in the sixth position
- B. change in the DNA coding for the amino acid in the seventh position
- C. adenine is replaced by thymine
- D. change in the DNA coding for the amino acid in the fourth position

Ans: A&C

White blood cells

Which one of the following growth factors we administer to a patient with neutrophil = $\leq 0.5 \times 10^9/L$ (sever neutopenia) ?

- A. G-SCF
- B. EPO
- C. Thrombopoietin
- D. T-bet

A

Which one of the following is NOT associated with Leukemoid reaction :

- A. Dohle bodies

- B. Toxic granulation
- C. Heinz bodies
- D. Vaculation

C

Hairy cell leukemia causes which one of the following:

- A. Monocytopenia
- B. Lymphocytosis
- C. Monocytosis
- D. Lymphocytopenia

A

Which one of the following types of WBCs has anticoagulant activity:

- A. Monocytes
- B. Basophil
- C. Eosinophil
- D. Lymphocytes

B * due to the presence of Heparin inside it.

If you have any questions you want to add, please send it to : Revislontest432@Gmail.com

Good luck

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