

Final HLS 2015

Histology

- 1- For foreign antigen recognition is the spleen – marginal zone sinuses
- 2- Not involved directly in an immune response to a foreign antigen – thymus
- 3- We recognize myelocytes from – specific granules

Physiology

- 4- Least common blood group in the region – AB
- 5- Wrong about von Willibrand disease – recessive inheritance
- 6- Order of tissues from which red bone marrow biopsies are taken – vertebrae sternum ribs femur tibia
- 7- Causes a shift to the right in O₂-Hb dissociation curve – exercise
- 8- The most important purpose of regulating extracellular fluid – prevent cells from shrinkage or swelling

Biochemistry

- 9- Wrong about T form of Hb – releases protons
- 10- Not remaining in the RBCs – Malic enzyme
- 11- Decreases p50 of Hb – beta4 increased in thalassemia
- 12- Not required for heme biosynthesis – heme oxygenase

Microbiology

- 13- A Woman with cervical lymphadenopathy, fever, increased atypical T cells, abnormal liver function – infectious mononucleosis of EBV
- 14- A person with a recent infection of EBV, serum test – EA- , VCAIgM-, VCAIgG+, EBNA+ (not sure)
- 15- True about slapped cheek – all
- 16- Correct about glove and sock disease – caused by Parvovirus
- 17- Wrong about P. malaria – relapse

Pathology

- 18- Not a cause of pancytopenia – thrombotic thrombocytopenic purpura
- 19- Not a cause of isolated cytopenia – metastatic carcinoma
- 20- Wrong about plasma cell myeloma – spooning of finger nails
- 21- A blood test showing 40% HbS and 40% HbA, what do you tell them – avoid dehydration and not marry someone like him (not sure which)
- 22- Messi showed pancytosis – request JAK II test
- 23- Common cause of increased neutrophils, erythrocytes and platelets – polycythemia vera
- 24- Wrong about vaccination – increased CD20+ cells
- 25- Someone with skin purpura, prolonged bleeding time and PTT increased – snake venom (maybe)
- 26- Wrong about t(15, 17) – gum growth
- 27- Causes overexpression of Bcl2 – CLL (mostly) or follicular lymphoma
- 28- A patient with erythrocyte and megakaryocyte dysplasia and blasts count 9% - RAEM1
- 29- CD59 CD55 test shows that A has hemolytic anemia that is not PNH and B has PNH, wrong about them – A has increased susceptibility to AML

30- True about G6PD, IDA and megaloblastic anemia – Cell size (normal, low, high) Retic count (high, low, low) LDH (high, normal, normal)

31- Not a cause of DVT – pulmonary embolism

Pharmacology

32- For sever IDA we start with – Iron-sorbitol (mostly)

33- Its deficiency causes homocysteine accumulation and vascular occlusions – N5-methyltetrahydrofolate

34- True about folate treatment – causes remission of pernicious anemia with continued neurological damage

35- Antidote for Dalteparin – no need usually

36- True about heparin and Warfarin – started together usually then heparin is stopped

37- Wrong about Warfarin – good for pregnant women

38- A drug that clears already formed clots, good after acute MI and very expensive – Ateplase

39- Blocks gpIIa/IIIb on platelets – Abciximab

40- Wrong about erythropoietin – best source is urine of patients with renal failure

Practical

1- Picture of spleen pointing at periphery of white pulp - true about marginal zone sinuses – all

2- Picture of thymus pointing at cortex and medulla – true – both (tolerance in cortex and mature T cells in medulla)

3- Picture of medulla of lymph node – true – this region contains medullary cords

4- Pictures of 1 (myeloblast) 2 (monocyte) 3 (basophil) 4 (something else) – cell that can give rise to an APC – 2

5- Pictures of neutrophil, band cell, metameyloctye and myelocyte – which can increase in bacterial infections – all

6- Picture cells of granulopoiesis and erythropoiesis pointing at neutrophil meylocyte and basophil erythroblast – true – both

7- Picture of neutrophils, band cells, neutrophil metamyelocyte and meylocyte – which is not present – more than one

8- Picture of a neutrophil and a lymphocyte – true – both (mostly)

9- Blood test showed agglutination only when adding Anti-A Abs – patient can receive transfusion from – A-

10- Picture of eosinophil – true – increases in parasitic infection

11- Picture of Hb test showing 18g/dl – woman has – polycythemia

12- Wrong about intrinsic pathways – PT above 30 seconds indicates abnormality (mostly)

13- Wrong about ESR – can be used to exclude underlying disease

14- WBC count – 2000 cell/microl

15- HB 11, Cell diameter 8.2, RBC count 3000, wrong – this is typical of IDA

16- Wrong about reticulocyte – has no hemoglobin synthesis

17- Pictures of tear-drop cell, acanthocyte, blood agglutination, and macrocytic RBCs – what is not found – Plasma cell above 10% in bone marrow

18- Pictures– identify – dysplastic megakaryocyte, neoplastic plasma cell, Reed-Sternberg cell

19- Pictures – diagnoses – P. falciparum, iron inside mitochondria, abnormal lysosomes

20- Pictures of myeloblast in blood film, excess neutrophils and shift to the left, starry night pattern, enlarged node follicles – diagnoses – AML, CML, Burkett's lymphoma, follicular lymphoma