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CVS, lung + kidney
+ complex
19 wily complex

Department
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4th Year MBBS, 14, December, 2017
(Pathology-Subjective Part)

Blood

Total Marks: 30

Time Allowed: 50 min

Q1-A 20 year old female comes to the hospital with the complaints of weakness, lethargy & shortness of breath on exertion.

On examination:

Pallor + Pulse 100/min, Bp 100/80mmHg

Hb 10g/dl TLC 4000/mm³ plt 200,000/mm³

MCV 65fl MCH 30

What is the diagnosis?

Iron deficiency anemia

What is the diagnostic approach to this condition?

CBC, MCV, MCH
serum Iron, low transferrin
TIBC, Ferritin

What are the causes of this condition?

Malnutrition, chronic blood loss, pregnancy

Q2- a 40 years old female comes to the hospital with the complaints of numbness in the right hand & tingling sensations in the finger. She is purely vegetarian for 2 years.

Lab investigations show:

Hb 11g/dl, MCV 110fl, TLC 5000/mm³

What is the diagnosis?

Megaloblastic anemia

What are the causes of this condition?

Folic acid, vitamin B12 deficiency
1 low serum vB12 level
2 low serum folate level
3 serum antibodies to intrinsic factor
Severe Megaloblastic Anemia

Q3- A mother brings a one year old baby boy to the hospital. She complains of poor feeding irritability, & weakness.

ON EXAMINATION: PALLOR + BOSSING OF SKULL
HB 4G/DL MCV 45FL
SERUM IRON NORMAL
SERUM FERRITIN NORMAL

B-thalassemia

What is diagnosis?

- β -thalassemia

What is the confirmatory test? WHAT happens to TIBC.

Normal

What is COOLEYS Anemia?

normal

What genes are responsible for this disease?

Cooley's Anemia or β -thalassemia

this is the most severe form of beta thalassemia in which complete lack of beta protein in the hemoglobin

Q4- A 38 year old man presents with a few tender, rubbery lymph cervical lymph node limited to the neck.

Hodgkin lymphoma

What is the appropriate investigation to perform after a full physical exam?

CBC, ESR, liver and kidney function test

Rep

Rep

Rep

Hemoglobin
Electrophoresis
Test
3-CVS test

H α B gene
 β -globin gene

What is the clinical difference between Hodgkin & non Hodgkin lymphoma 607 (2)
 Classify NHL and describe morphology of Burkitt's Lymphoma? 30 Ka, 607 597 (2)

Q5- A 12 years old girl comes to emergency with the complaint of severe pain in the back & abdomen.
 He also c/o of excessive fatigue & repeated infections
 On examination: leg ulcer & leg tenderness
 Labs show: Hb low MCV normal MCH normal. Peripheral picture shows abnormal cells which look like

spindles sickle cell Disease (1)

What is the diagnosis? (1)
 Classify hemolytic anemias (4)

Q-6 Classify Hodgkin's Lymphoma and give morphology of each type.
 b- what immunomarkers are needed for its diagnosis. (4+1)

CD20 and BCL6

- ① NS: - Deposition of collagen in bands
 • Reed Sternberg cell
 • CD15, CD30, CD45
- ② M.C: - Reed Sternberg cell, mononuclear variant, lymphocyte R.i.s
- ③ L.R: - Reactive lymphocyte, cellular infiltrate
- ④ L.D: - Pleomorphic variants, Reed Sternberg
- ⑤ S.P: - Pop corn cell, Reed Sternberg cell
 CD20, BCL6

Synthesis

Intrinsic Abnormalities
 Hereditary
 membrane abnormalities
 Enzyme deficiency
 Disorder of Hemoglobin
 membran defect

Extrinsic Abnormalities
 antibody - Mediator
 Antibodies
 mechanical trauma to red cell
 microangiopathic hemolytic anemia
 infections

- ① High mitotic index
- ② ~~numerous~~ apoptotic cells
- ③ Starry Sky pattern
- ④ Royal Di...