



PATHOLOGY

SHERIN EDITION

CLINICAL CHARTS



KSU/2025-26

LET CHART 2B

70-year-old man complaints of loss of weight, loss of appetite and generalized pruritus and yellowish skin color for the past 2 month. Noticed abdominal mass with recent increase in size.

O/E Pallor+, Icterus+

Per Abdomen examination- there is a firm mass in epigastric and umbilical region.

Investigations

S. Bilirubin- 3mg/dl

S. Alkaline Phosphatase- 600 U/L (Normal 20 to 140 U/L)

Urine - Bile salts- present

- Bile pigments- present

- Urobilinogen - absent

Q- INTERPRET THE CHART FINDINGS

REVISION
DATE

20 year old boy presented with recurrent attacks of jaundice. Family history of jaundice and gall stones for his brother.

O/E. Icterus+ Splenomegaly+.

Investigations

S. Bilirubin-8mg/dl

Unconjugated-6.8mg/dl

Conjugated-1.2mg/dl

S.Alk.Phosphate-12U/L(Normal 20 to 140U/L)

Urine- Urobilinogen+++

Fouchet's test negative.

Q 1. Interpret the chart findings and give your diagnosis?

CHART NO. 7D

16-year-old male, born out of non-consanguineous marriage came to OPD for follow-up of anemia. Mother had similar complaints of pallor and jaundice.

O/E- Pallor +, Icterus +, Splenomegaly +

Investigations-

Hemoglobin -6g/dl

MCHC – 37 gm/dl (NI value - 34 ± 2 g/dl)

Reticulocyte count – 8%

Peripheral Blood smear – Spherocytes+ (20-30/HPF) present.

DCT (Coomb's test) negative

Osmotic fragility test: started at 0.8% Completed at 0.35%

(Control: started at 0.6% Completed at 0.4%)

Q.1 Interpret the chart and give your diagnosis?

Q.2 How will you confirm your diagnosis?

CHART NO. 7A

38 -year-old lady, known case of SLE admitted with pallor, dyspnea, mild jaundice. She had incompatible crossmatch with all donors of the same blood group.

O/E- Pallor+ Mild splenomegaly+
Hb-7.2 gm/dl.

Peripheral Blood Smear show – Spherocytes.

Direct Coomb's test (AHG) positive.

Q.1 Interpret the chart and give your diagnosis?

CHART NO. 7B

3-year-old male child from tribal area in Wayanad district, presented with recurrent chest infections, anemia, jaundice.

h/o of similar complaints at one year of age

O/E - pallor+ jaundice +, leg ulcers +

Investigations-

Hemoglobin-6gm/dl

Reticulocyte count - 5%

Peripheral smear: sickled cells (ISC)seen.

Q.1 Interpret the chart and give your diagnosis?

Q.2 Name two investigations and the findings in each.

Q3. What is auto splenectomy?

CHART NO.



3 years old child presented with failure to thrive.

On examination: pallor+, icterus+, frontal bossing present.

HB- 6.2 g/dl RBC count- 5.7 million/cu.mm

Blood indices: MCV: 60fl, MCH: 25pg, MCHC: 25g/dl.

Reticulocyte count: 4%

Peripheral blood smear:

Microcytic hypochromic anemia. Target cells, Basophilic stippling, polychromatic cells seen.

Hemoglobin Electrophoresis showed

 Hemoglobin A (Adult Hb) - markedly decreased

 Hemoglobin A2 -increased

 Hemoglobin F- increased.

Q.1 Interpret the chart and give your diagnosis?

Q.2 What is the genetic abnormality in this case?

CHART NO.6

A 39-year-old man who was childless after 5 years of marriage visited infertility clinic for medical evaluation.

Semen Analysis Report

- I. Physical examination- colour- whitish
Volume- 4ml Ph- 7.4
Liquefaction- within 20 min at 37°C
- II. Microscopic examination
Total sperm count- 10 million/ ml normal
(Reference range >20million/ml)
Motile sperms- 10% (NI>50% of viable)
Morphology- 20% normal (Normal >60% oval forms)

Q.1: Interpret the findings

CHART NO.6

A 39-year-old man who was childless after 5 years of marriage visited infertility clinic for medical evaluation.

Semen Analysis Report

- I. Physical examination- colour- whitish
Volume- 4ml Ph- 7.4
Liquefaction- within 20 min at 37°C
- II. Microscopic examination
Total sperm count- 10 million/ ml normal
(Reference range >20million/ml)
Motile sperms- 10% (NI>50% of viable)
Morphology- 20% normal (Normal >60% oval forms)

Q.1: Interpret the findings

RFT CHART- 4B

65 years man, known diabetic and hypertensive presented with weakness, fatigue, increased urine frequency and edema.

O/E- pallor + edema+

BP: 170/100mmHg.

Blood- Hb- 6g/dl.

RFT impaired - Blood urea- 140mg/dl

S. creatinine – 5-8mg/dl.

Urine Volume-2000cc/day

Specific gravity-1010

Heat and acetic acid test +ve

Microscopy - Hyaline casts+

1. Write your probable diagnosis.
2. What is the gross morphology of kidneys in this condition?

LFT CHART 2A

45-year old woman complaints of loss of weight, loss of appetite, yellowish colour of skin. H/o drug intake for seizures for the past few years.

(Carbamazepine)

O/E Pallor+, Icterus+

Investigations

S. Bilirubin- 3mg/dl

AST – 645U/L

ALT -280U/L

S. Alk. Phosphatase- 400 U/L (Normal 20 to 140 U/L)

Urine - Bile salts- present

- Bile pigments- present

- Urobilinogen - present

INTERPRET THE CHART FINDINGS.

CSF CHART- 1B.

5-year-old boy presented with fever, vomiting, severe headache for the past 1 week. O/E- drowsy and confused. temp- 38-degree C. Neck rigidity+ Kernig's sign positive.

CSF examination —

Gross- Colorless and forms cobweb on standing.

Sugar-40mg/dl (45mg-85mg /dl)

Protein-130mg/dl (20mg-40mg /dl)

Chloride-550mg/dl (720mg-750mg /dl)

Cells- 600 cells /mm³ predominant cells are lymphocytes.

Q.1 Interpret the chart findings,

Q.2 Etiology of the condition and complication?

CSF CHART

GMC, EKM

S-

21 years male presented with fever, severe headache and vomiting x1 day. O/E- He is drowsy and confused.

Neck rigidity+ Kernig's sign +ve

CSF examination – Turbid on gross appearance.

Sugar-10mg/dl (45mg-85mg /dl)

Protein-150mg/dl (20mg-40mg /dl)

Chloride-600mg/dl (720mg-750mg /dl)

Cell Count- 1500/mm³·Predominant cells are Neutrophils.

Q.1 Interpret the chart findings,

Q.2 Etiology of the condition in different age groups.

CSF CHART - 1C

10 years male presented with fever, severe headache and vomiting x1 day.

O/E- Drowsy and confused. Neck rigidity+ Kernig's sign +ve
A lumbar puncture done —

Color and appearance- clear.

Sugar-50mg/dl (45mg-85mg /dl)

Protein-100mg/dl (20mg-40mg /dl)

Chloride-730mg/dl (720mg-750mg /dl)

Cells- 70/mm³ predominant cells are lymphocytes.

Q.1 Interpret the chart findings,

Q.2 Etiology of the condition?

CHART NO. 8A

52 Year old male Presented with pallor, generalized bone pain.

Investigations.

Blood Hb- 7gm%
 ESR- 140mm at 1 Hr.
 Serum calcium- 12mg/dl (normal 8.6 to 10.3mg/dl)
Urine - Proteinuria++

X- Ray skull – Multiple punched out lytic lesions

Immuno electrophoresis and immuno fixation - A sharply defined M band is seen in the gamma globulin region.

Bone marrow- The predominant cells are plasma cells and are oval with abundant deep blue cytoplasm and eccentric nucleus with “cart wheel” chromatin. Binucleated and multinucleated cells are seen.

Q.1 Interpret the chart and give your diagnosis?

Q.2 How will you confirm your diagnosis?

GMC, EKM

S-

CHART NO

A 5-year-old boy was brought to the casualty with painful swelling Right knee joint following a fall. This was the third episode and mother gave a history of prolonged bleeding following tooth extraction.

Lab evaluation report

Bleeding time(Dukes) - 3min (normal 2 -9 min)

Clotting time -30min (prolonged)

Platelet count - Normal

Prothrombin time(PT)- Normal

Activated Partial Thromboplastin Time (APTT)- 52 sec.
(control -30sec)

Q.1 What is the Most Likely Diagnosis and Why?

Q. 2 What is the abnormality in this condition.

RFT CHART-

GMC, EKM
-S

12year-old male, presented with puffiness of face, pedal edema since 10 days progressing to involve the whole body since 3-4 days.

O/E- Periorbital and massive body edema+, distension of abdomen+.

BP was 110/70mmHg.

Urinalysis -

Urine- (a) Physical examination

Colour and appearance – Turbid

Sp. Gravity- 1050.

Reaction- acidic

(b) Chemical examination

Albumin-++++

1. Write your probable diagnosis.
2. Classify proteinuria?
3. What is microalbuminuria?

TFT CHART NO 3A

45-year-old female presented with c/o lethargy, menstrual disturbances, weight gain, cold intolerance and painless swelling in front of neck.

o/e: Firm, diffuse, symmetrically enlarged swelling in front of the neck

Lab Investigations:

S. Free T4: 0.2ng/dl (Normal 0.9-2.3ng/dl)

S.TSH: 10 mU/L - (Normal 0.3-4mU/L)

Anti-microsomal Ab(s): ++

Q. 1. Diagnosis?

Q.2 Write two causes.

Q. 3 Name the Antibodies seen in this condition.

TFT CHART NO. 3B

35-year-old female presented with c/o nervousness, anxiety, irritability, insomnia, weight loss, heat intolerance & swelling in front of neck.

O/E: Heart Rate: 120/min, fine tremors+, exophthalmos, lid lag,

Diffuse enlargement of thyroid gland.

Lab Investigations: Serum TSH: 0.1mU/L (Normal 0.03 to 4mU/L)

Free T3 :712 pg/dl (Normal 230-619 Pg/dl)

Free T4: 2.5ng/dl (Normal 0.9-2.3ng/dl)

Q. 1. Write your Diagnosis

Q. 2. Write two Causes

Q. 3 Name the Antibodies seen in this condition.

LFT CHART. 2 D

14-year-old boy presented with fever, loss of appetite and yellowish discolouration of urine for the past 2-3 days. H/o travelling outside Kerala three weeks ago.

O/E: fever +, jaundice ++, yellowish coloured urine.

Lab investigations

Serum. Bilirubin – 7.5mg/dl (Normal

AST – 1245 U/L

ALT -480U/L

Urine – bile salts ++, bile pigments ++

1. Whats your diagnosis?
2. Most probable virus causing the illness.
3. Name one serological test for confirmation.

CHART NO 8B

16-year-old male presented with large cervical mass, fever, night sweats and weight loss for past one month.

Radiological survey -Cervical and mediastinal lymphadenopathy and enlarged para- aortic lymph nodes.

Lab findings:

Hemoglobin- 10g/dl

FNAC of lymph nodes showed large cells with bilobed nuclei in a background of lymphoid cells.

Lymph node biopsy showed – Large Reed Sternberg cells in a background of Lymphocytes, neutrophils, eosinophils.

Q.1 Write your diagnosis?

Q.2 How will you classify the above condition

12 Year old boy presented with bleeding from nose.

Investigations

Blood- Hb - 10gm% Total WBC Count- $6000/\text{mm}^3$

DC- Poly- 60%, Lymphocytes-32% Eosinophils-8%

Bleeding time - 12mts (normal 2mts-9mts)

Clotting time - 8mts (normal 4mts- 11mts)

Platelet count - $2000/\text{mm}^3$

Peripheral smear- Platelets are reduced in number.

Bone marrow- Normocellular, Erythropoiesis and myelopoiesis are normal. Megakaryocytes increased in number, platelet production decreased, immature megakaryocytes seen.

Q.1 Interpret the chart and give your diagnosis?

Q.2 List four causes of thrombocytopenia.

RFT CHART- 4B

65 years man, known diabetic and hypertensive presented with weakness, fatigue, increased urine frequency and edema.

O/E- pallor + edema+

BP: 170/100mmHg.

Blood- Hb- 6g/dl.

RFT impaired - Blood urea- 140mg/dl

S. creatinine – 5-8mg/dl.

Urine Volume-2000cc/day

Specific gravity-1010

Heat and acetic acid test +ve

Microscopy - Hyaline casts+

1. Write your probable diagnosis.
2. What is the gross morphology of kidneys in this condition?

CHART NO.6

A 39-year-old man who was childless after 5 years of marriage visited infertility clinic for medical evaluation.

Semen Analysis Report

- I. Physical examination- colour- whitish
Volume- 4ml Ph- 7.4
Liquefaction- within 20 min at 37°C
- II. Microscopic examination
Total sperm count- 10 million/ ml normal
(Reference range >20million/ml)
Motile sperms- 10% (Nl>50% of viable)
Morphology- 20% normal (Normal >60% oval forms)

Q.1: Interpret the findings