Hodgkin Lymphoma :-

Q. A 50 year old patient develops Generalized Lymphadenopathy, with low grade evening pyrexia. Biopsy of Lymph nodes shows effacement of architechture with scattered classical Reed-sternberg cells in Polymorphous back-ground.

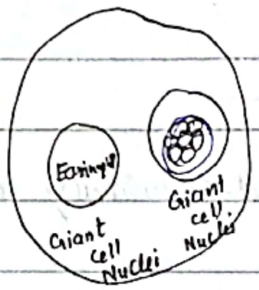
Diagnosis
Morphology

* Diagnosis :-

Hodgkin-Lymphoma
Characterized by Lymphadenopathy

* Morphology of RS-cells :-

owl-eye appearence.



RS cells are large.
Binucleated Giant cell
Owl-Eye appearence
Easinophilic Nucleoli
Minor Nuclei but prominent multi-lobulated Nuclei

* Tender-Rubber Lymph cervical :

Appropriate Investigation
Biopsy
Fine-needle aspiration
ESR
CT-scan
MRI

Hael-marie-on Biopsy
02 Minor image nuclei
surrounded by clear zone

Variants of Hodgkin Lymphoma :-

① - Classical

② - Non-classical

-: Classical :-

(EBV-Related)

CD-15
CD-30
CD-45

① - Nodular Sclerosis :-

Lacunar cells ✓
Mummified cells
Prominent Fibrosis

② - Lymphocyte Rich :-

↑ Lymphocyte
↓ RS cells
Mono-nuclear cells — EBV-40%

③ - Mixed-Cellularity :-

Plasma-cell
Nuetrophill — EBV-70%
RS-cell
Mono-nuclear cells ✓

④ - Lymphocyte-Depletion :-

↑ RS cell
↓ Lymphocyte
Reticular cells ✓

-: Non-Classical :-

(Not Related To EBV)

CD-20

CD-15

CD-30

① Lymphocyte Pre-dominance :-

LH Variant ✓

Large no of Lymphocytes.

* Tumarkers for Diagnosis of Hodgkin-Lymphoma

Classical	Non-classical
CD-15	CD-15
CD-30	CD-20
CD-45	CD-30

Q. A 05 year old african child presented with a swelling at angle of Jaw which is rapidly ↑ size Assosiated with Anemia, W.loss, Appearence starry sky picture.

Non-hodgkin Lymphoma:-

* Classification

① Diffuse B-cell Lymphoma
② Follicular Lymphoma
③ Mantel Lymphoma
④ Burkitt Lymphoma
⑤ Hair-cell Lymphoma

Dr. Fahad must leave Beard and Hair.

* Give Morphology of Burkitt Lymphoma :-

Starry sky appearence
High Mitotic Rate
Moderate amount of Basophillic cytoplasm ē vacule
Oval-Nuclei
Several Nucleali
Many Macrophages

* Mutation :

MYC gene at chromosome 8

Difference b/w Hodgkin Lymphoma + Non-hodgkin Lymphoma

H-Lymphoma		NH-Lymphoma
Localized To single group of nodes - Cervicle - Para-aortic	-①-	Multiple peripheral nodes.
Contagious spread	-②-	Non-contagious spread
Rare Mesenteric node involved	-③-	Commonly Mesenteric node involved
Rare Weldeyer Ring involved	-④-	Cammonly weldeyer Ring involved
Extra Nodal presentation Rare	-⑤-	Extra-Nodal presentation common.
Fever	-⑥-	No feuer.

Acute-Lymphoid Leukemia :-

05-6 years Children

Lymphadenopathy

Diagnosis :→ ↑ Lymphocytes

↓ RBC

↓ Platecells

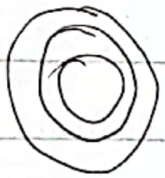
↓ Nuetrophills

↓ Basophill

↓ Eosinophill

↓ Monocyte

Morphalogy :→



Large cell

Large Nuclei

N:C Ratio ↑

Prominent Nucleali

Bone-Marrow Smear :→ ↑ Blast cell

↓ Mature cell.

Acute Myeloid Leukemia :

Adult

* Diagnosis :→ ↓ Lymphocyte
  ↑ RBC
  ↑ Platelets
  ↑ Nuetrophills
  ↑ Basophills
  ↑ Eosinophills
  ↑ Monocyte

* Bone-Marrow Smear :→ ↓ Mature cell
  ↑ Blasts cell

Morphology :→

Small cell ✓ Small ✓
Round
N:C ratio ↓ ✓
Prominent Nucleoli ✓

FAB-Classification:-

M_0 – Undifferentiated
M_1 – Without Maturation
M_2 – Granulocyte & Maturation t(8:21)
M_3 – Acute Promyelocytic t(15:17) - APL
M_4 – Granulocytic monocytic maturation - Gmm
M_5 – Monoblast - MB
M_6 – Erythro-leukemia - EL
M_7 – Meg-karyoblastic. - MK

Clinical-Significance of philadelphia chromosome

* - Hall-mark of chronic myeloid leukemia (CML)
* - Also found in all form of acute lymphoblastic (ALL) leukemia
* - Translocation b/w 22:9 chromosomes.

Lab-Diagnosis of DIC :-

① - CBC → Thrombocytopenia (Platelet count low)
② - Clotting → PT↑, aPTT↑, TT↑ (Fibrinogen low)
③ - Fibrin Related → D-dimer↑
④ - Coagulation Factor → V, VIII ↓, VII ↓ PT-prolong
⑤ - EDR → +ve

VIII, IX, X, XII → aPTT-prolong
If any other - Both prolong

Chronic Lymphoid leukemia :-

Old-age > 65-70 years

Mylocytes

Pro-mylocytes

- AP
- Gmm
- MB
- EL
- MK

* Diagnosis :→ ↑ Lymphocytes
  ↓ RBC
  ↓ Platelets
  ↓ Nuetrophills
  ↓ Basophills
  ↓ Easinophills
  ↓ Monocytes

ome

BL) A
(LBL)

* Bone-marrow :→
  smear

  Mature cell ↑
  Blast cell ↓

* Morphalogy :→

  Large cell
  Large Nuclei
  N:C Ratio ↑
  Prominent Nucleali

Chronic Myeloid Leukemia:

Adults

9:22 mutation

Philadelphia chromosome

* Diagnosis :→ ↓ Lymphocytes
↑ RBC
↑ Platelets
↑ Neutrophills
↑ Basophills
↑ Easinophills
↑ Monocytes

* Bone-marrow :→
↑ Mature cells
↓ Blast cells.

* Morphology :→
Small
Round
N:C Ratio ↓
Prominent Nucleoli