



## Pathology Dr ola's Quiz

Scientific team

1. A 25 year old women presented to the clinic complaining of supraclavicular lymphadenopathy. An excisional diagnostic biopsy was performed and showed an infiltrating tumor effacing the normal architecture. The tumor had collagenous bands that resulted in a nodular formation composed of mixture of lymphocytes, eosinophils, histiocytes along with large cells having single multilobate nuclei with multiple small nucleoli and an abundant, pale-staining cytoplasm (lacunae like). These large cells were positive for CD15 and CD30. What do you want to tell your patient about her tumor:

- A. It is usually associated with EBV infection
- B. It has a very poor prognosis
- C. The most likely diagnosis is follicular lymphoma, high grade
- D. The tumor has an excellent prognosis and is not associated with EBV
- E. None of the above

Answer: D

2. Select the correct statement regarding small lymphocytic lymphoma(SLL):

- A. It is a high grade lymphoma
- B. It never transforms to a higher grade lymphoma
- C. It never involves the peripheral blood
- D. Characterized by the presence of t(11,18)
- E. Characterized by diffuse growth pattern of small resting lymphocytes with proliferation centers

Answer: E

3. A 7 year old African patient presented with a jaw mass. A biopsy was taken and microscopically showed a malignant tumor mostly consistent with lymphoma which was associated with EBV. Which one of the following histologic features supports a diagnosis of Burkitt lymphoma:

- A. Diffuse growth pattern of intermediate-sized cells with a starry sky appearance
- B. Diffuse growth pattern of cells resembling immunoblasts and centroblasts
- C. Diffuse growth pattern of reactive immunologic cells with scattered Reed Sternberg cells
- D. Diffuse growth pattern of cells slightly larger than normal lymphocytes with cleaved nuclei
- E. Diffuse growth pattern with a mixture of centrocytes and centroblasts

Answer: A

4. In a lymph node biopsy excised from a patient with lymphadenopathy. Which one of the following is considered a reassuring feature that would favor a reactive process than malignancy:

- A. Distortion of the lymph node architecture
- B. Infiltration of the lymph node capsule and surrounding fat
- C. Distribution of the lymphoid follicles in the cortex only
- D. Absence of the phagocytic activity (tingible body macrophages) in the germinal centers
- E. Uniformity of the size and shape of the germinal centers

Answer: C

5. A 70-year-old gentleman was found to have generalized lymphadenopathy. A lymph node biopsy was taken and showed an invasive tumor effacing the normal architecture with a nodular pattern, composed of mixture of small cells with irregular cleaved nuclei and larger cells with prominent nucleoli and modest amounts of cytoplasm. These cells were positive for B cell markers, CD10 and BCL2. Further molecular test revealed the presence of t (14,18). What is your most likely diagnosis:

- A. Burkitt lymphoma
- B. Diffuse large B cell lymphoma
- C. ALL
- D. Multiple myeloma
- E. Follicular lymphoma

Answer: E

6. The most common mutation presented in chronic myeloid leukemia (CML) is:

- A. JAK2 point mutation
- B. MPL point mutation
- C. BCR-ABL fusion gene
- D. KIT point mutation
- E. P53 mutation

Answer: C



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7. A 62 year old patient presented to the emergency complaining of fatigue and cutaneous petechiae. His CBC showed the presence of anemia and thrombocytopenia. In addition he was found to have splenomegaly. He underwent a bone marrow biopsy with was hypercellular with immature cells demonstrating delicate nuclear chromatin, multiple nucleoli, and fine azurophilic cytoplasmic granules along with red cytoplasmic rods. These cells were positive for MPO. Which one of following factors do you think to represent an UNfavorable prognostic factor for this patient:

- A. t(15,17)
- B. Absence of prior MDS
- C. Absence of prior chemotherapy
- D. Very low level of WBCs
- E. All of the above are considered as good prognostic factors

Answer: E

8. Which one of the following is a good prognostic factor for acute lymphoblastic leukemia (ALL):

- A. Hyperdiploidy
- B. CNS involvement
- C. Hypodiploidy
- D. Very high WBC count
- E. None of the above

Answer: A

9. Which one of the following statements best describes myeloproliferative neoplasms (MPN) in general:

- A. The presence of hypercellular marrow backed with immature cells
- B. The presence of hypercellular marrow with maturation and elevated peripheral blood levels of cells
- C. The presence of hypercellular marrow with fibrosis and peripheral pancytopenia
- D. The presence of hypocellular marrow with increased blasts and dysmorphic cells
- E. The presence of morphologic dysplasia of marrow and peripheral blood cells

Answer: B

10. A 17-year-old male patient presented with fever and soar throat. He also was found to have cervical lymphadenopathy. His peripheral blood revealed the presence of leukocytosis with large, atypical lymphocytes. In addition he also had positive EBV specific antibodies, and his lymph node biopsy showed paracortical zone infiltration by atypical lymphocytes. What is your most likely diagnosis?

- A. Infectious mononucleosis
- B. Brucellosis
- C. Toxoplasmosis
- D. Tuberculosis
- E. Diffuse large B cell lymphoma

Answer: A

11. A 67-year-old man, clinically asymptomatic, incidentally was found to have a bone marrow plasma cells component comprising > 10% of cellularity. In addition, his serum protein electrophoresis revealed a monoclonal protein spike > 3 gm/dl. What is the most likely diagnosis of the patient:

- A. Lymphoplasmacytic lymphoma
- B. Monoclonal gammopathy of undetermined significance
- C. Smouldering multiple myeloma
- D. Multiple myeloma
- E. None of the above

Answer: C

12. The most common immunoglobulins secreted by multiple myeloma are :

- A. IgM, IgG
- B. IgG, IgA
- C. IgA, IgM
- D. Kappa light chain, IgM
- E. Lambda light chain, IgM

Answer: B