

PathMD™: Board Review Letter

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Hematopathology – Part 7

Volume 1, Number 50

Case #1 This patient has a 52-year-old female with a history of an enlarged right cervical lymph node. The patient also has hyper-gammaglobulinemia. Representative sections of the lymph node are shown in images for this case. Special stains performed but not shown, include CD21 which highlights follicular dendritic cells surrounding the vessels, and EBV by in situ hybridization, which highlights scattered cells. Numerous cells are CD2, CD3, and CD5 positive but have markedly decreased CD7 expression. CD30 highlights rare scattered cells. Based on these findings in the patient's clinical history, what is the best diagnosis?

- A. Adult T-cell leukemia/lymphoma
- B. Lymph node involvement by Sezary syndrome
- C. Mixed cellularity Hodgkin lymphoma
- D. Angioimmunoblastic T-cell lymphoma
- E. Anaplastic large cell lymphoma

Case #2 The patient is a 40-year-old man with a history of a large anterior mediastinal mass and multiple axillary lymph nodes concerning for lymphoma. Representative images of the histologic sections from the lymph node are shown. Based on the morphology in the immunophenotypic findings shown, what is the best diagnosis?

- A. Nodular lymphocyte predominant Hodgkin lymphoma
- B. Anaplastic large cell lymphoma
- C. Classical Hodgkin lymphoma -- lymphocyte depleted
- D. Classical Hodgkin lymphoma -- syncytial variant
- E. Classical Hodgkin lymphoma -- nodular sclerosing subtype

Case #3 This patient has a 40-year-old Hispanic male with no known past medical history presents to the hospital with fever, malaise, and general fatigue. During the medical workup for CD4 count was found to be less than 10. A bone marrow biopsy was also performed, and Representative images and special stains are shown. Based on the findings in this case, what is the best diagnosis?

- A. Plasma cell dyscrasia
- B. Cryptococcal infection
- C. Pneumocystis carinii infection
- D. Blastomycoses infection
- E. Histoplasmosis infection

Case #4 The patient is a 70-year-old male with a history of an Ig-G kappa SPEP. Laboratory studies showed a prolonged PT and aPTT. A bone marrow biopsy was performed for the monoclonal gammopathy, and representative images are shown. Based on the findings, what is the best explanation for the patient's problems?

- A. Multiple myeloma
- B. AA amyloidosis
- C. AL amyloidosis
- D. HIV infection
- E. Monoclonal gammopathy of undetermined significance

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Question #1 In case #4 is the most likely etiology of the prolonged PT and aPTT?

- A. Thrombin deficiency
- B. Dysfibrinogenemia
- C. Factor X deficiency
- D. Factor XI deficiency
- E. Factor II deficiency

Case #5 A 45 y/o female presents with a “pancreatic mass” on CT scan. An ulcerated mass was found in the second portion of the duodenum. Multiple biopsies were taken, and representative sections and special stains are shown. Based on the findings, what is the best diagnosis?

- A. Undifferentiated carcinoma
- B. Classical Hodgkin Lymphoma
- C. Diffuse Large B cell Lymphoma
- D. Anaplastic Large Cell Lymphoma
- E. None of the above

Case #6 A 60 y/o old male with a significant past medical history presents with worsening pancytopenia. A bone marrow biopsy was performed and representative sections, including special stains are shown. Based on the findings, what is the best diagnosis?

- A. Hairy Cell Leukemia
- B. Diffuse Large B-Cell Lymphoma
- C. T-Cell Leukemia/Lymphoma Unspecified
- D. AML-M4
- E. None of the above

Case #7 A 48 y/o female presents with bilateral pulmonary nodules and hilar lymphadenopathy. A wedge resection is performed and representative images are shown. Based on the morphology and special stains, what is the best diagnosis?

- A. Multi-centric Tuberculosis
- B. Anaplastic Large Cell Lymphoma
- C. Classical Hodgkin Lymphoma
- D. Diffuse Large B-Cell Lymphoma
- E. None of the above

Question #2 If properly stored tissue can often be held up to 48 hours before being processed, and 72 hours before being analyzed. Which of the following specimens should be processed and analyzed within 12 to 24 hours?

- A. Whole blood, acute leukemia
- B. FNA, follicular lymphoma
- C. Solid tissue, Hodgkin lymphoma
- D. Solid tissue, Burkitt lymphoma
- E. None of the above