

HLS-Pathology

Archive

Lecture 9

Plasma Cell Neoplasms

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1. A 43 year old female presented with right chestpain, non-radiating for 2 months duration. Chest CT scan revealed well defined hypodense soft tissue mass involving the fifth rib and the parietal chest wall. Histopathologic examination of the mass revealed an infiltration of mature plasma cells. M protein is absent in the blood, urine is negative for Bence jones proteins, and the bone marrow biopsy is normal. What is the most likely diagnosis?

- a. Smoldering myeloma.
- b. Solitary Plasmacytoma.
- c. Monoclonal gammopathy of undetermined significance.
- d. Lymphoplasmacytic lymphoma.
- e. Waldenstrom macroglobulinemia.

Ans: b

2. All of the following is true about Monoclonal gammopathy of undetermined significance (MGUS) EXCEPT?

- a. it is a plasma cell disorder.
- b. It is very common in older adult.
- c. Has constant rate of transformation to multiple myeloma but its low.
- d. Patients have small to moderately large M components in blood.
- e. Patients commonly present with pathologic fractures

Ans: e

3. One of the following is not among renal dysfunction features in multiple myeloma patients?

- a. Light chain deposition in the glomeruli.
- b. Bacterial pyelonephritis.
- c. Obstructive proteinaceous casts.
- d. Hypocalcemia.
- e. Renal stones

Ans: d

4. Which of the following conditions is most commonly associated with the presence of Mott cells on histopathology?

- a. Hodgkin lymphoma
- b. Chronic lymphocytic leukemia (CLL)
- c. Multiple myeloma
- d. Acute lymphoblastic leukemia (ALL)
- e. Infectious mononucleosis

Ans: c

5. Which of the following hematologic malignancies is most commonly associated with the MYD88 mutation?

- a. Follicular lymphoma
- b. Diffuse large B-cell lymphoma
- c. Chronic lymphocytic leukemia (CLL)
- d. Lymphoplasmacytic lymphoma
- e. Mantle cell lymphoma

Ans: d

6. Which of the following statements is correct regarding plasma cell neoplasms ?

- a. Multiple myeloma is commonly associated with Waldenström macroglobulinemia
- b. Monoclonal gammopathy of undetermined significance (MGUS) can progress to multiple myeloma
- c. A solitary bone or soft tissue mass is the most common presentation of multiple myeloma
- d. Bence Jones proteins are high molecular weight immunoglobulins
- e. Lymphoblastic lymphoma does not require aggressive chemotherapy

Ans: b

Mutation in Case about punched out skull:

12 Multiple Myeloma - pathogenesis

- ▶ Myeloma often has chromosomal translocations that fuse the IgH locus on chromosome 14 to oncogenes such as the cyclin D1 and cyclin D3 genes.
- ▶ Multiple myeloma has a number of effects on the skeleton, the immune system, and the kidney, all of which contribute to morbidity and mortality of the disease.

Cyclin D1