Proteinaceous Lymphadenopathy in an Elderly Patient with a History of Nodular Sclerosing Hodgkin Lymphoma: A Case Report of Rare Entity and Literature Review.

Arooj Devi, M.D., Marwan Majeed, M.D., Maurice Richardson, M.D., M.I Almira-Suarez M.D.
Department of Pathology and Laboratory Medicine and East Carolina University, Greenville, NC, United States

BACKGROUND

Proteinaceous Lymphadenopathy (PLD) is an underdiagnosed entity of unclear etiology that has been reported in an association with various underlying conditions including rheumatoid arthritis, systemic sclerosis, chronic infection, lymphoma, and post-CAR-T cell therapy. PLD is a benign entity, that is characterized by deposition of glassy pink, acellular, and amorphous material in an enlarged lymph node.

CASE REPORT

A 85-year-old male patient diagnosed with Nodular Sclerosing type classic Hodgkin Lymphoma (NScHL) in 2018, he completed chemotherapy and achieved remission, and a follow-up PET scan showed no active disease. Currently, he presented to the emergency department with complaints of weight loss, hypercalcemia, acute kidney injury, and a new extensive mediastinal, retroperitoneal and cervical lymphadenopathy on CT scan suspicious for disease recurrence or metastatic process. Ultrasound guided excisional biopsy of cervical lymph node was performed. Grossly, lymph nodes were tan-pink, soft with homogenous smooth cut surface.

Histologic evaluation showed no evidence of Hodgkin Lymphoma (HL); the findings were confirmed with flow cytometry. Interestingly, all lymph node were replaced by an amorphous material that resemble amyloid deposits. Amyloidosis was excluded by negative Congo red stain. The amorphous material was positive for periodic Acid-Schiff (PAS) and periodic Acid-Schiff diastase resistant (PASD). Scattered macrophages and residual benign lymphocytes were seen at the border of lymph node. Pan-cytokeratin was negative for metastatic carcinoma and CD68 highlighted macrophages. The diagnosis of proteinaceous lymphadenopathy was made secondary to the prior diagnosis Classical Hodgkin Lymphoma. See pictures(NScHL) (A,B), source: Pathology Outlines.

REFERENCES


SUMMARY OF HISTOLOGICAL FINDINGS

- Deposition of eosinophilic amorphous material replacing the lymph node that simulates amyloid deposits.(D,E)
- Scattered macrophages with residual benign lymphocytes seen within lymph node high lightened by CD68.(H)
- Immunohistochemical stains findings: Positive for PAS and PASD (F) Negative for Congo Red with no evidence of polarizable material (G)
- Negative for pan-cytokeratin

RESULTS

Nodular Sclerosing type classic Hodgkin Lymphoma. Source: Pathology Outlines