

Primary lymph node plasmacytoma: A rare clinical entity, diagnosed by fine-needle aspiration cytology

Sir,
Extramedullary plasmacytoma (EMP), either nodal or extra-nodal has been defined as an autonomous proliferation of monoclonal plasma cells exhibiting varying stages of maturation and producing a localized mass or resulting in diffuse infiltration.^[1] It accounts for 2% of all extramedullary plasma cell tumors and only 0.08% of all plasma cell neoplasms.^[1] We report herein an extremely rare case of primary lymph node plasmacytoma (PLNP), in a 38-year-old male who presented to our hospital with a chief complaints of fever of 2 years duration associated with nonprogressive swelling in right side of neck since 2 months. On examination, the swelling showed 3-4 matted lymph nodes forming a nontender mass of about 1.5 × 1.5 cm in size. Ultrasound examination revealed features of reactive lymphadenopathy. The hematological and biochemical investigations of the patient were within

normal limits. A bone marrow examination revealed normal bone marrow study with plasma cells of about 6%.

Fine-needle aspiration cytology (FNAC) performed on the lymph node mass showed cellular smears exhibiting both mature and immature plasma cells including myeloma cells scattered singly and arranged in small clusters along with presence of numerous neutrophils in the background. Binucleate and multinucleate forms were also present, plasma cells showed prominent eccentric nuclei, coarse chromatin, perinuclear halo and basophilic cytoplasm, while myeloma cells had high N:C ratio, fine chromatin, prominent nucleoli and little or no halo [Figure 1a and b]. A diagnosis of PLNP was made on cytology.

Primary lymph node plasmacytoma is rare entity and in order to diagnose the same there should be no

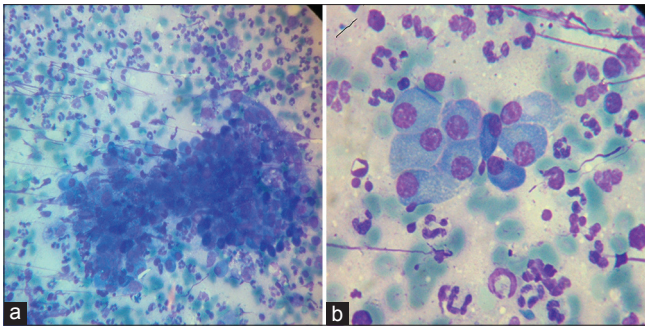


Figure 1: (a) Fine-needle aspiration cytology smear from lymph node showing sheets of plasmacytoid cells with neutrophils and lymphocytes in the background (Giemsa stain, $\times 100$). (b) Smear showing cluster of myeloma cells and mature plasma cells (Giemsa stain, $\times 400$)

evidence of nodal or nonnodal extramedullary plasma cell proliferation elsewhere and absence of malignant lymphoma component.^[2] The present case shows no other site of plasma cell proliferation with no clinical, radiological, and laboratory evidence of plasma cell dyscrasia, thus our case satisfies the criterion for PLNP. The differential diagnosis to be considered in case of PLNP includes:^[3]

- Reactive lymph node plasmacytosis, which will show mainly, mature plasma cells
- Lymphoplasmacytic immunocytoma, which microscopically shows presence of small lymphocytes mixed with lymphoplasmacytoid cells and plasma cells
- Metastasis of an EMP or of a multiple myeloma, and from a lymph node involved by plasma-cell leukemia. There was no evidence of multiple myeloma in our case as bone marrow study was normal and no evidence of paraproteinemia was present. There was no evidence of plasma cell leukemia on peripheral smear and bone marrow examination
- Diffuse large B cell lymphoma with plasma cell differentiation shows microscopically, cells varying considerably in size with nuclei, which are round, indented and irregularly folded: The features, which were not present in our case
- Plasmablastic lymphoma is seen in immunocompromised patients and is limited to oral cavity and jaw and aggressive in nature.

Other sites of occurrence of EMPs are in upper aerodigestive tracts including the nasal cavity, sinuses, oropharynx,

salivary glands, larynx, and breast representing 80% of the reported cases.^[4] Menke *et al.* studied largest series of PLNP ($n = 25$).^[3] PLNP clinically behaves in better manner than other EMP, as it may manifest with disseminated lymph node spread but does not exhibit metastasis to bone marrow in comparison to other EMP which usually metastasize to bone marrow.^[3] PLNP is cured by surgical excision or local radiotherapy.^[2] PLNP similar to other EMPs has better prognosis and survival than patients of multiple myeloma.^[3,5] Cytological evaluation of plasmacytomas on FNAC offers rapid and reliable diagnosis on which prompt treatment decisions can be made.

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REFERENCES

1. Woodruff RK, Whittle JM, Malpas JS. Solitary plasmacytoma. I: Extramedullary soft tissue plasmacytoma. *Cancer* 1979;43:2340-3.
2. Soutar R, Lucraft H, Jackson G, Reece A, Bird J, Low E, *et al.* Guidelines on the diagnosis and management of solitary plasmacytoma of bone and solitary extramedullary plasmacytoma. *Br J Haematol* 2004;124:717-26.
3. Menke DM, Horny HP, Griesser H, Tiemann M, Katzmann JA, Kaiserling E, *et al.* Primary lymph node plasmacytomas (plasmacytic lymphomas). *Am J Clin Pathol* 2001;115:119-26.
4. Alexiou C, Kau RJ, Dietzfelbinger H, Kremer M, Spiess JC, Schratzenstaller B, *et al.* Extramedullary plasmacytoma: Tumor occurrence and therapeutic concepts. *Cancer* 1999;85:2305-14.
5. Mittal MK, Sureka B, Singh V, Chaudhary M, Sinha M, Thukral BB. Extramedullary plasmacytoma in the posterior triangle of neck: A rare entity. *Clin Cancer Invest J* 2014;3:99-101.

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