To the Editor,

Extramedullary hematopoiesis (EMH) is the presence of hemopoietic precursors outside the bone marrow. Usually, it is noted in patients with myeloproliferative disorder and congenital hematological diseases. The organs most commonly involved are the spleen, liver, and lymph nodes, but EMH has also been reported in a number of unusual sites such as, mediastinum and even breast. Although cases of myeloid metaplasia presenting as masses within various sites have been reported, to the best of our knowledge, no case of EMH masquerading as malignant neoplasm of neck in a case of plasma cell neoplasm has been documented. We hereby present such a case, where the diagnosis was made by fine-needle aspiration (FNA) cytology.

A 50-year-old man presented with a complaint of a huge neck swelling. The patient was a known case of plasmacytoma, diagnosed in 1988, for which he received chemotherapy and radiotherapy. The patient underwent remission and the follow-up hemogram was within normal limits for the last 15 years. On examination, a nontender and bony hard neck swelling measuring 15 x 10 cm was detected. Hemogram and serum electrophoresis were within normal limits. Bone marrow examination revealed myelofibrosis in trephine biopsy. X-ray and computed tomography (CT) scan revealed a well-defined homogenous mass above the left clavicle extending posteriorly. Clinical and radiological possibilities of malignant neoplasm of neck were considered and FNA was done. The smears were stained with May-Grunwald Giemsa (MGG) and Hematoxylin and Eosin (H&E). Smears were moderately cellular comprising lymphocytes, polymorphs, immature granulocytic precursors such as myelocytes and metamyelocytes, nucleated red blood cells, and larger binucleated to multinucleated cells with fine granular cytoplasm representing megakaryocytic lineage of cells. The diagnosis of EMH was offered.

In the index case, the patient presented clinically with a neck mass masquerading as malignant tumor of the neck. Differential diagnosis included plasmacytoma, paraganglioma, fibrohistiocytic lesions, rhabdomyosarcoma, and metastatic carcinoma on clinical grounds. Fine-needle aspiration findings were obvious enough to clinch the diagnosis. Even on cytomorphology, megakaryocytes with hyperchromatic nuclei and marked nuclear membrane irregularity may be misinterpreted as atypical or malignant cells. The presence of blasts in EMH may lead to difficulty in distinguishing the entity from granulocytic sarcoma or lymphoma. The presence of mature polymorphs, erythroblasts and megakaryocytes is helpful to the diagnosis of EMH in contrast to the homogenous leukemic infiltrates occurring in granulocytic sarcoma. Multiple myeloma is a known cause of secondary myelofibrosis. Also, cyclophosphamide causes fibrosis of ovary, bladder, and lungs but there are no well-documented reports of bone marrow fibrosis. Fine-needle aspiration has been a modality to diagnose EMH in cases presenting as tumors. Our case demonstrates the unusual finding of EMH presenting as soft tissue tumor of the neck in a known case of plasma cell neoplasm and diagnosed successfully by FNA findings.

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