An Interesting Case Report of Pancytopenia in a HIV Seropositive Patient - Primary Bone Marrow Non Hodgkins Lymphoma Large Cell Type

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ABSTRACT
Secondary involvement of bone marrow is relatively common clinical entity in non-Hodgkin’s lymphoma, however primary bone marrow non-Hodgkin’s lymphoma is a rare. Here we present a 38 year old female patient who is HIV seropositive presented with pancytopenia. On evaluation found to have primary bone marrow Non-Hodgkin’s lymphoma of large cell type.

Key words: Pancytopenia, Primary bone marrow diffuse large B-cell lymphomas, AIDS.

Introduction:
Kaposi sarcoma, aggressive B-cell non-Hodgkin lymphoma, and cervical cancer constitute AIDS defining malignancies¹. With increase in number of AIDS patients, there has been significant increase in the number of cases of non-Hodgkin’s lymphoma, approximately 3% of HIV positive patients develop lymphoma in the course of disease². Diffuse large B-cell lymphoma accounts for 40% of cases of NHL³. Despite this, exact prevalence of primary bone marrow lymphoma presenting as pancytopenia is not known.

Case Report:
38 year old female patient diagnosed with HIV infection on HAART (regimen : AZT + 3TC + NVP). Later on her ART regimen was changed to TDF + 3TC + NVP due to anaemia and is on this regimen since 1 year. She presented with easy fatiguability, generalised weakeness of 3 months duration. She had pallor on examination and there was no lymphadenopathy. Laboratory findings revealed - Hb - 3.9gm/dl, Total count 1800 cells / cumm (57% neutrophils, 40% lymphocytes, 2% monocytes, 1% eosinophils, 0% basophils), 10,000 / cumm platelets.

Peripheral smear revealed pancytopenia with normocytic RBCs and moderate anisocytosis. Vitamin B₁₂ and Folic acid levels normal. Ultrasound abdomen was normal with no evidence of hepatosplenomegaly. Chest x-ray, CT scan abdomen and thorax were normal. For the evaluation of pancytopenia bone marrow aspiration and biopsy was done.

Bone marrow aspiration revealed hypercellular marrow with reduced erythropoiesis, myelopoiesis, megakaryopoiesis. Lymphopoiesis was markedly increased with monotonous large lymphoid cells with increased nuclear cytoplasmic ratio with prominent nucleoli comprising 70% of the marrow cells. Plasma cells-within normal limits.

Bone marrow biopsy was reported to be hypercellular marrow with presence of tumor cells, round monotonous cells with large nucleus and prominent vesicular nucleoli; suggestive of NON HODGKIN’S LYPHOMA - LARGE CELL TYPE.

Immunohistochemistry showed The tumour cells positive for CD45, CD20,CD79a, and PAX5 (B-cell markers) and negative for CD3 and CD5 (T-cell markers),suggesting NHL large cell type.She was managed with R-CHOP regimen and showed normalisation of counts after 6 cycles.

Discussion:
Primary bone lymphomas are rare, even though secondary involvement of the bone marrow is a common event in systemic lymphomas. Most primary bone lymphomas are Primary bone marrow...
diffuse large B-cell lymphomas (PBLDLCs). The PBLDLC affects the middle-aged to elderly population, with a predominance in men (1.5:1). According to the World Health Organization classification of tumours of soft tissue and bone, the criteria for a diagnosis of PBL are a single skeletal tumour without regional lymph node involvement, and multiple bone lesions without visceral or lymph node involvement. Primary bone lymphomas account for less than 1% of all malignant lymphomas, 7% of malignant bone tumours, and 4% to 5% of extra nodal lymphomas.

The most common presentation of patients with PBLDLC is bone pain, and less-frequent presentations include a palpable mass and bone fracture. Symptoms, such as paraplegia can occur. Compared with systemic lymphomas, the systemic or B symptoms occur less frequently with PBLDLC. Rarely, symptoms caused by hypercalcemia (eg, lethargy, constipation, and somnolence) may be present. Since Primary bone marrow lymphoma (PBML) is a rare entity, real boundaries and clinic-biological significance are not well defined. Thus far, only few cases have been reported in the literature.

In this case, age of presentation is much younger (38 years) than median age of presentation. (48 years). Male preponderance is seen in NHL in contrast to present case. With respect to presentation, no bony pain here which is generally presenting feature in primary bone marrow lymphoma and pancytopenia as the sole presenting manifestation.

**Conclusion:**

Although NHL is increasingly being diagnosed in HIV seropositive patient, here we have reported a rare case of primary bone marrow non Hodgkins lymphoma presenting as pancytopenia in a HIV seropositive patient with no evidence of extra medullary involvement.

**References:**


