Case Report

Non-Hodgkin's Lymphoma Presenting as Multiple Bone Lesions

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ABSTRACT

A rare case of a patient with Non-Hodgkin's Lymphoma (NHL) who presented with multiple bone lesions is reported. A 45 year old male patient presented for bony pains and generalized weakness. He had bilateral axillary and inguinal lymphadenopathy. Radiographic examination revealed multiple osteolytic lesions involving multiple dorsal, lumbar, sacral vertebral bodies, ribs, sacral bone and left femur. Bone marrow examination and serum electrophoresis was normal. Urine was negative for Benz Jone's proteins. Serum calcium was normal. The histopathology and immunohistochemistry studies of the inguinal lymphnode settled the diagnosis of B-cell Non-Hodgkin's lymphoma.

Key words : Lymphoma, Bone lesions.

Introduction -

Lymphoblastic lymphoma is a neoplasm of precursor lymphoid cells morphologically indistinguishable from those of acute lymphoblastic leukemia. It usually manifests in the lymphnodes, skin, and other organs[1]. Primary lymphoma of bone (PLB) is a rare condition composing less than 1% of all non-Hodgkin's lymphomas, 3-5% of all bone tumors and 5% of all extra nodal lymphomas[2, 3]. The sites of lymphoma most commonly affected are the long bones and the usual symptom is bone pain. The outcome of patients with localized PLB is thought to be favorable after combined modality therapy (CMT)[4]. However some patients demonstrate systemic symptoms with multiple bone lesions. Hypercalcemia occasionally complicates NHL and is seen in about 15% of patients with disseminated disease[5], but it is relatively rare in PLB. This case was thought to be orthopedic case and was referred as there was no response to treatment.

Case Report -

A 45 yrs. old male patient was referred to medicine by orthopedic surgeon with a provisional diagnosis of? Multiplemyeloma?? Bonymetastasis. Patient had history of bony pains and generalized weakness since one and half months. On examination, he was found to have bilateral inguinal and axillary lymphadenopathy. There was no organomegaly. He was investigated. His hematological findings showed. Hemoglobin 11.7 gm/dl, White blood cells 11.9x109/L with Neutrophils 65%, Monocyte 1%, Eosinophils 3%, Basophils 1%, Lymphocytes 30% and platelet count 670x109/L. Total protein was 7gm/dl with normal immunoelectrophoresis. The level of Lactate dehydrogenase was increased to 1466U/L (Normal range 0-450 U/L), AST : 80U/L, ALT 72U/L, alkaline phosphatase was 265U/L.The blood urea was 37mg/dl, Serum Creatinine 0.9mg/dl, Calcium 8.8 mg/dl, Phosphorus 4.6mg/dl. $ß_2$Micro globulin 2895ng/dl (normal range 609-2366). Bone marrow examination was normal. Radiograph of chest was normal. CT chest revealed lytic and sclerotic lesions extensively involving multiple dorsal, lumbar, sacral, vertebral bodies, ribs, pelvic bone and left femur. CECT of brain revealed periventricular ischemia and lytic lesions in skull bones. MRI of the dorsal spinerevealedmixed intensity signals from D2 to D10 predominantly hyper intense on T2 weighted images and hypo intense on T1 weighted images. Collapse of D6 was noted. Epidural extension of soft tissue was noticed at D7 causing indentation of spinalcord. These were thought to be due to vertebral metastasis ***(Fig.1).*** Histopathology of axillary lymph node revealed effacement of normal architecture and diffuse replacement by sheets of

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round cells having round nuclei with nucleoli and scanty cytoplasm. ***(Fig. 2).*** Immunophenotypic study of the lymph node biopsy was positive for common leukocytic antigen (CLA) and CD 20. It was negative for CD3 and CK which suggested B cell monoclonal proliferation. Diagnosis of B cell non Hodgkin's lymphoma was entertained. Clinical stage was stage 4 under Ann Arbor classification. He was put onchemotherapy consisting of cyclophosphamide, doxorubicin, vincristine andprednisolone (CHOP). Unfortunately patient was lost for follow up after completing 1 cycle of chemotherapy.

Discussion -

NHL arising in bone as the primary site is unusual. The peak incidence is in 5th decade of life with a predominance of male patients and most lesions occurring in lower part of body. NHL arising in bone also occurs in children and adolescents[1]. The tumor formation may be the earliest manifestation preceding other symptoms, signs and bonemarrow evidence of systemic malignancy in which bone lesions were first manifestion of the disease. Histologicaltypes of NHL restricted to bone with either localized or disseminated disease are predominantly the large cell lymphomas along with a substantial proportion of lymphoblastic lymphomas. There are only few small noncleived cell lymphomas. The large cell lymphomas occur more often as localized disease where as the lymphoblastic lymphomas more frequently present as disseminated disease[6].

Conclusion -

Bone manifestations of lymphoma should be taken in mind in otherwise unexplained bone pain.

Conflicts of Interest : None reported by Authors.

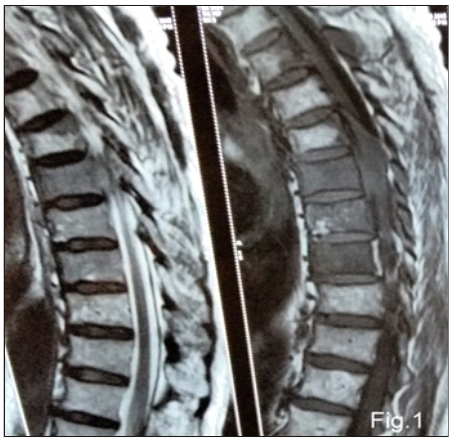

Fig. 1 : **MRI dorsal spine T1 and T2 images showing mixed intensity signals suggestive of metastasis.**

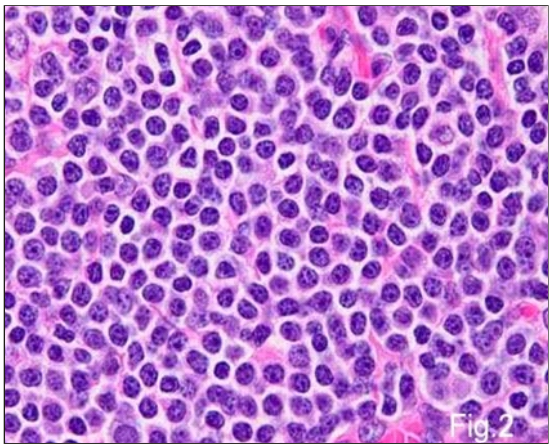

Fig. 2 : **H. P. of lymph node suggestive of B cell NHL**

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