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Non Hodgkin's Lymphoma of Head of Humerus in HIV Patient - A Rare Case

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Abstract: ***Non Hodgkin's lymphoma is a type of malignancy that generally develops in the lymph nodes and lymphatic tissue found in the organs such as stomach, intestines or skin. In some cases it may involve bone marrow and blood. It is considered as AIDS defining illness with more propensity to involve central nervous system, gastrointestinal system. We report a case of young male with HIV infection presented with swelling of right shoulder later diagnosed with non hodgkin's lymphoma of head of humerus. Non hodgkin's lymphoma of head of humerus is rare finding; with its early diagnosis and prompt treatment can help in identifying and limiting progression of HIV infection.***

Keywords: Non Hodgkins Lymphoma, head of the humerus, HIV patient

1. Introduction

NHL is considered as AIDS defining illness standing second next to only Kaposi's Sarcoma. Primary lymphoma of bone is a rare condition that has been described as a malignant neoplasm formed of lymphoid and myelopoetic tissues. It is responsible for approximately 3% of primary bone tumors with most common location being femur. NHL seen in HIV positive patients is of more aggressive type with most common types are Primary effusion lymphoma, Burkitt's lymphoma and primary CNS lymphoma. Involvement of bone that too head of humerus is seldomly seen in HIV infected individuals.

2. Case Presentation

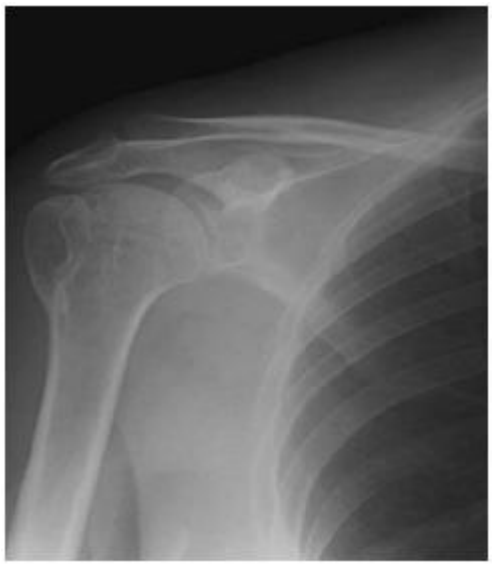
A 40 year old male diagnosed with HIV infection 2 yrs back presented with complaints of pain at right shoulder region and restricted movements during rotation of shoulder since 15 - 20 days. Pain was insidious in onset gradually progressive; It was not associated with fever or recent trauma to the shoulder joint. Patient is a on ART treatment (Abacavir, Lamivudine, Dolutegravir) since 2 years.

On clinical examination patient was conscious oriented to time, place, person with Blood Pressure of 130/80mm/hg, Pulse Rate 82/min SpO2 98%, No lymphadenopathy or visible swelling at other sites. On systemic examination no abnormality was detected. On local examination there was restriction in flexion and extension of humerus; pain and tenderness during movement of joint is noted along with minimal crepitations.

Investigations

- CBC (Hb - 11.4 gm/dl, MCV - 86.6 fl, HCT – 34.6, WBC – 9900/mcl, Platelets - 2, 43, 000/mcl)
- KFT (Sr. Sodium 132 meq/l, Sr. Potassium 4.1 meq/l, Creatinine - 0.8 mg/dl Urea – 26 mg/dl)
- LFT (Albumin3.1 gm/dl Globulin 3 gm/dl Total Protein 6.1 gm/dl, Direct Bilirubin 0.5 mg/dl, Indirect Bilirubin 0.3 mg/dl, Total Bilirubin 0.8 mg/dl, ALP 53 IU/L, AST 41 IU/L, ALT31 IU/L)
- CD4 count - 108 cells/micro - litre

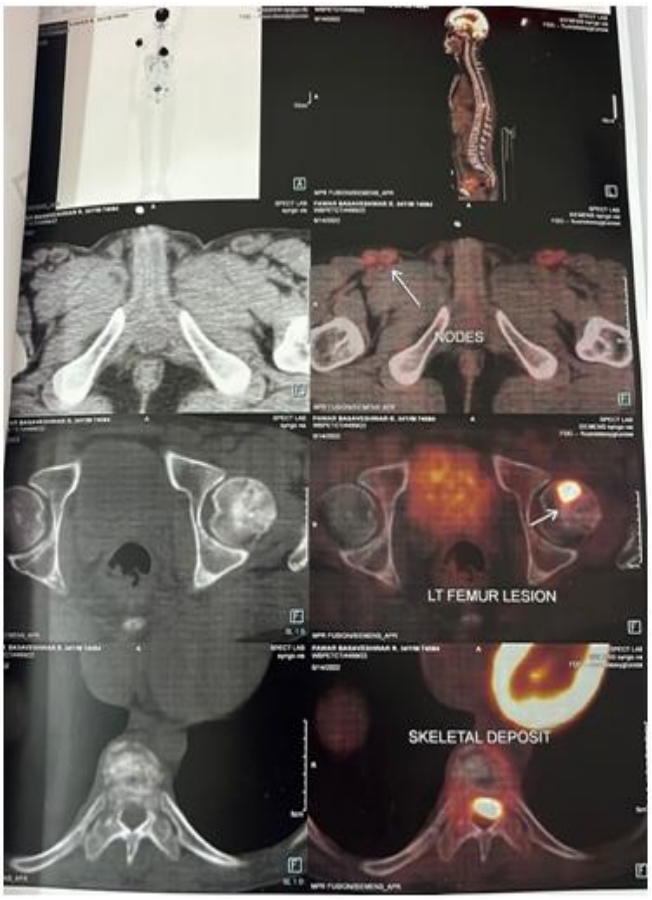
1) X ray of right shoulder was showing lytic lesion.

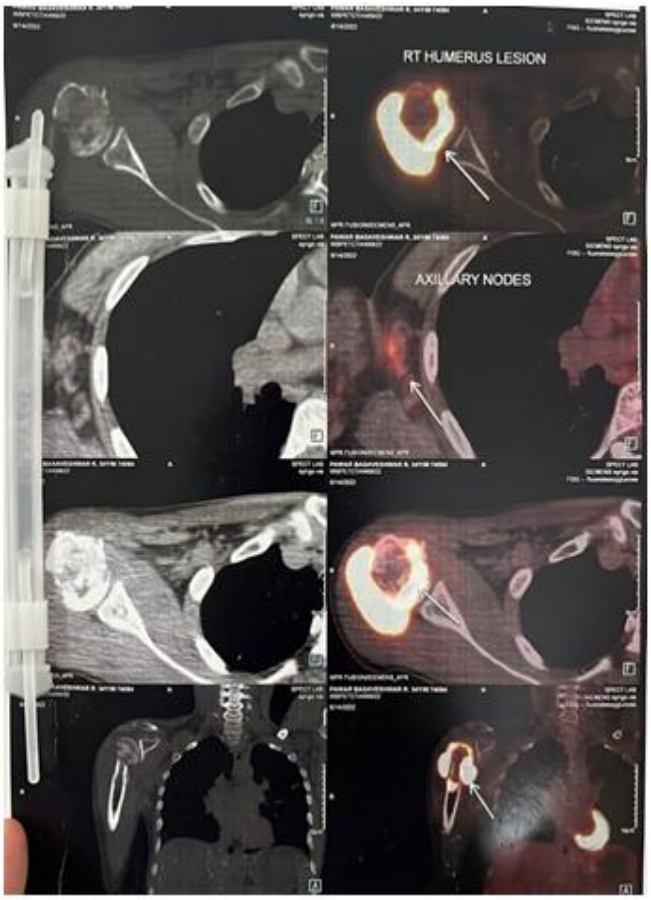


2) CT scan of right shoulder showed Undisplaced fracture of humerus head, neck and both tuberosities seen. Mild soft tissue callus formation noted around. Soft tissue swelling and edema noted.

3) MRI of head of humerus Focal irregular area of osteolysis with associated secondary pathological fracture involving humeral head with moderate surrounding marrow edema. Moderate juxtacortical soft tissue abnormality encircling the neck and proximal shaft of humerus. Possibility of Neoplastic etiology is more likely than infective etiology.

FDG whole body PET CT scan



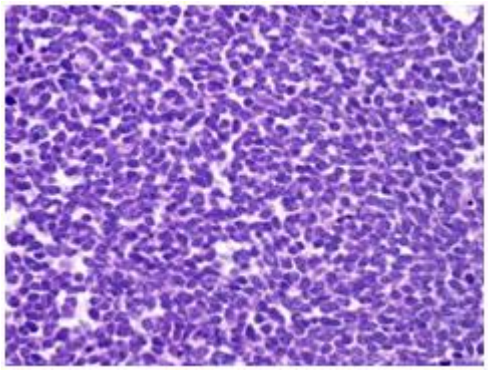


Suggested Heterogeneous increased FDG uptake is seen around the known fractured head of right humerus associated with soft tissue component. FDG avid lytic lesion is seen involving head of left femur.

Focal mildly increased FDG uptake is seen along soft tissue thickening at Li - S spine region - inflammatory in nature.

4) Biopsy of the humerus showed malignant small round tumour of head of humerus.

Advice - Immuno histochemistry correlation.



5) Immunohisto chemistry

Tumour cells are positive for LCA, CD20 and CD 99, Negative for CD3 and CD30.

USG guided biopsy from head of humerus shows High grade B cell non Hodgkin's lymphoma

Patient has been initiated with chemotherapy at Dedicated cancer institute, Patient improved symptomatically after 3 cycles of chemotherapy (R CHOP) Regimen. Total 6 cycles of Of R CHOP (monoclonal antibody Rituximab, cyclophosphamide, doxorubicin, vincristine, prednisone) regimen are recommended for Non Hodgkin's lymphoma.

3. Discussion

People living with HIV including people taking effective treatment for about 10 times more likely to develop NHL than people without HIV. Most common being diffuse large B cell lymphoma. The damage that HIV does to immune system makes people living with HIV more vulnerable to NHL than other people. In people living with HIV NHL is most commonly manifested as primary CNS lymphoma, primary effusion lymphoma or Burkitt's lymphoma.25 - 30 % of NHL are extranodal in nature of that primary bone tumors account merely for 5% (1). Of these extranodal non hodgkin's lymphoma manifesting s bone tumors commonly involve Femur with only 12% predilection towards upper limb. NHL presenting as primary bone tumor; only 10% shows features of solitary none lesions (2). Although pain represents the leading symptoms it can mislead during diagnosis and hence extensive evaluation is required (3 - 6). In this case report early characterization of mass like features helped to raise suspicion of neoplastic disease which lead to its early diagnosis and treatment with betterment of prognosis. As NHL is considered as AIDS defining illness its early diagnosis is crucial in people living with HIV irrespective of its site of involvement as seen in this case report.

4. Conclusion

Non Hodgkin's lymphoma could rarely present as primary bone tumor that too in upper extremities. NHL being AIDS defining illness physicians should be vigilant in its diagnosis even in absence of signs of system disease irrespective of HIV infection.

References

[1] OSTROWSKI ML, UNNI KK, BANKS PM, SHIVES TC, EVANS RG, O'CONNELL MJ, Cancer, 58 (1986) 2646
[2] KOCIJAN^I] K, KOCIJAN^I] I, Coll Antropolo, 30 (2006) 925.
[3] BREKALO Z, KVESI] A, GALI] G, KUKI] - - BRUSI] S, MARTINOVI] V, JONOVSKA S, Coll Antropol, 31 (2007) 1183.
[4] AJDUK M, MIKULI] D, SEBECI] B, GASPAROV S, PATRLJ L, ERDELEZ L, SKOPLJANAC A, STARESINI] M, DESKOVI] S, SOSA T, SITI] S, Coll Antropol, 28 (2004) 937.
[5] HORZI] M, SALAMON A, KOPLJAR M, SKUPNJAK M, CUPURDIJA K, VANJAK D, Coll Antropol, 29 (2005) 133.
[6] Bozi} B, Rotim K, Houra K, Coll Antropol, 32 (2008) 195.