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RESEARCH ARTICLE

PRIMARY NON-HODGKIN'S LYMPHOMA, TESTICLE: (CASE REPORT)

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ABSTRACT

Non Hodgkin's Lymphoma (NHL) testes is a rare disease that comprises nearly 1% of all cases of NHl and around 9 % of all cases of testicular tumor. We report here a rare case of 56 year old male who presented with complains of pain and swelling in left testes. USg shows para aortic lymphadenopathy with raise vasculature on colour Doppler. Tumor markers were raised. MRI brain shows finding of Lymphoma. PET CT shows raised SUV uptake in left testes . Multiple positive pelvic and paraaortic lymph nodes. Left inguinal orchidectomy was performed and histopathology shows tumor cells arranged in sheets and on immunohistochemistry , it was negative for CD20 and CD45 and positivr for CD 3. The patient was started on chemotherapy i.e CHOP (Cyclophosphamide, Oncovorin, Adriamycin and Prednisolone). The role of rituximab is linked to CD-20 positive lymphomas only as Rituximab is a monoclonal antibody agent against CD 20. The overall prognosis of NHL testes is very poor.

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INTRODUCTION

Primary testicular Lymphoma is a rare(Ellatif, 2019) aggressive form of NHL(Castellino, 2014).It accounts for less than 5% of testicular malignancy and 1-2% of NHL cases(Castellino, 2014). Most common type is Large B-Cell Lymphoma. T cell and Burkitt Lymphoma being the other types.It is a disease of elderly with median age of diagnosis being 66-68 years(Ellatif, 2019).It usually presents withfirm painless testicular mass[2], usually without any preference to any side. It is inseperable from affected testes(Castellino, 2014). It is difficult to differentiate clinically(Ellatif, 2019). Pain may be the presenting symptom rarely, which is indicative of systemic disease(Castellino, 2014).HIV is known risk factor with aggressive NHL. There is limited data for other risk factors.Patients with HIV infected lymphomas most commonly present with extranodal primary site(Castellino, 2014). Other risk factors from anecdotal report include trauma, cryptorchadism, chronic infection, filiarisis(Cheah, 2014).

There is possibility of involvement of C/L testes, CNS and other extranodal sites ie. lung, skin, kidney, GIT and other organs.It is an aggressive tumor with overall poor progression free survival.

CASE REPORT

A 56 yearold male patient presented to GMCH with chief complaints of left testicular mass and pain since 4 months. Patient noticed a firm mass which was insidious in onset, progressed from pea size to size of orange.Pain was insidious in onset, sharp in nature, radiating to lower abdomen which was not relieved on medication. This was not associated with aggravating or relieving factors.

Investigations

USG Whole Abdomen

- Multiple hypoechoic mass in paraaortic region.

- Left testes-grossly bulky with altered echopattern and increased vascular pattern on colour Doppler.
- Right testes – Normal shape and size.
- Bilateral mild hydrocele

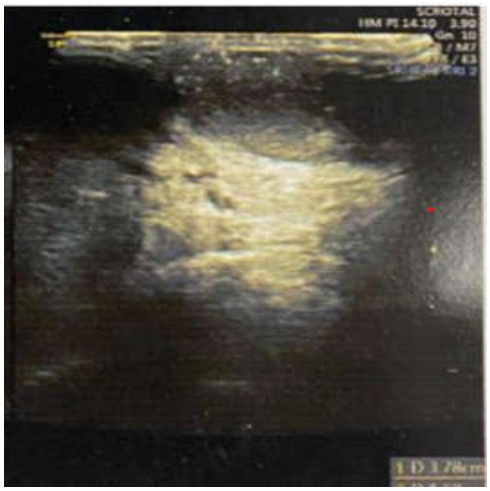

Fig. 1.USGscrotum showing hard mass in left testicle

Tumor Markers

- AFP-4.40
- Beta HCG<1.2
- Beta2 microglobulin-3706
- LDH-1616

MRI Brain

- Oval well defined enhancing lesion in mid body of corpus callosum with few other tiny enhancing foci adjacent to it in inferior part of bilateral basal ganglia and bilateral cerebellar hemispheres
- Findings consistent with Lymphoma.

PET CT

- Left testes not visualized
- FDG avid enhancing lesion involving right testes, abdomino pelvic, inguinal and left thigh lymph nodes, left medial thigh muscles- Residual disease.
- FDG avid marrow changes -Physiological change? Lymphomatous involvement?
- Low grade to FDG avid paraaortic, aortocaval,retrocaval,left common iliac, left external iliac.
- Left external iliac (SUV max 15.5 vs. 9, 3.8* 2.7cm vs1.4 *1.4cm)
- Left Inguinal (SUV max 14.4 vs. 11.7, 2.6 * 2.1 cm vs 2.3 *1.8)

HISTOPATHOLOGICAL EXAMINATION

Biopsy left testes

- Biopsy showed sheets of round to ovalmonomorphic tumor cells of size 1.5-2 times of normal lymphocytes
- Showing condensed nuclear chromatin, inconspicuous nucleoli and amount of cytoplasm

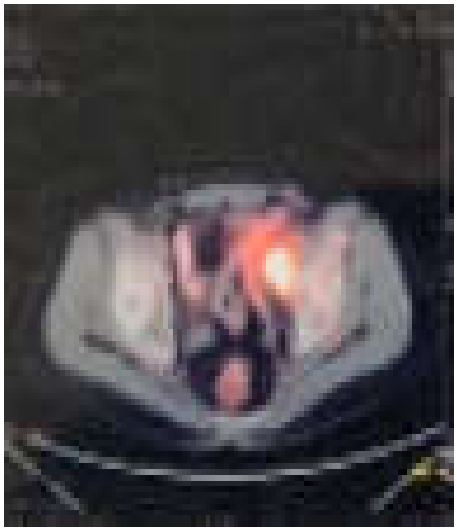

Fig 2, Fig 3- showing hypermetabolic uptake in pelvic lymphnodes

Immunohistochemistry

Positive for

CD 3
CD 45

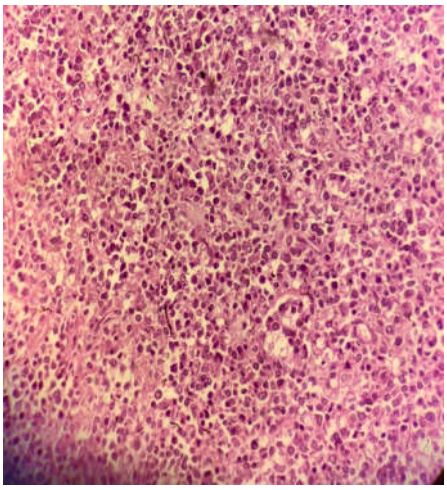

Fig. 4. Picture showing atypical lymphoid cells with irregular nuclear contours, coarse clumped chromatin and occasionally prominent nucleoli

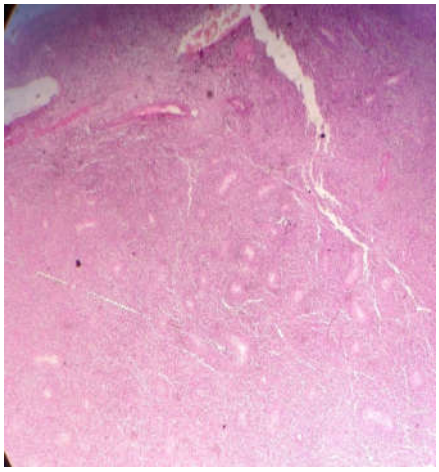

Fig 5. Sheets of atypical lymphoid cells in testicular parenchyma

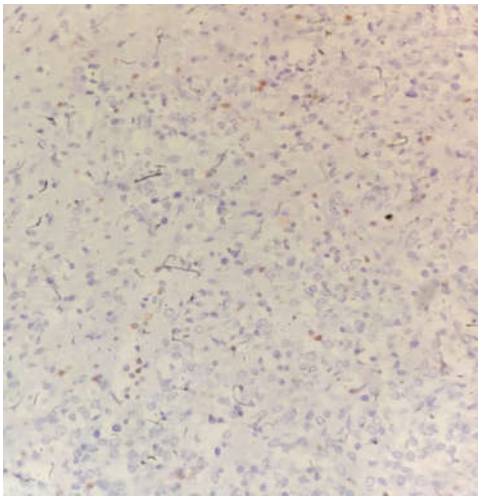

Fig 6. CD 3 positive

Treatment

Treatment approach of testicular tumor is based on Radiological investigations, tumor marker.In testicular tumor, never approach transsrotal biopsy as it lead to tumor spillage. Treatment approach is radical inguinal orchidectomy followed by either curative/ radiotherapy or chemotherapy depending on the size of tumor.In this case patient came high orchidectomy was done at private hospital.Patient was planned for CHOP regimen.Patient received 3 cycles of CHOP regimen as

- Cyclophosphamide 750 mg/m2
- Vincristine 1.4 mg/m2
- Doxorubicin 50 mg/m2
- Prednisolone 100 mg P.O d1-d5

Patient received 6 cycles of CHOP chemotherapy.Since it is aggressive disease, PET CT after 6 cycles showed progression of disease as per previous scan

- Low grade to FDG avid paraaortic, aortocaval, retrocaval,left common iliac, left external iliac.
- Left external iliac (SUV max 15.5 vs. 9, 3.8*2.7cm vs1.4*1.4cm)
- Left Inguinal (SUV max 14.4 vs. 11.7, 2.6*2.1 cm vs 2.3*1.8)

Conclusion

Primary NHlL testes is a rare neoplasm and comprises nearly 1% of all cases of NHl.NHL testes is a disease of older individual with nearly 85 % of cases seen in individuals with age more than 60 years.NHL testes can be unilateral (70-80%) or bilateral (20- 30 %).The most common presenting symptom is swelling which can be painless or painful. Since NHL testes carries high chance of brain metastasis, prophylactic cranial radiation is required. Thus, treatment for NHL testes is an aggressive approach i.e chemoimunotherapy with prophalytic cranial irradiation with or without radiation to primary tumor site.It is known to show very high chance of recurrence and distant dissemination.Overall prognosis of NHL testes is very poor with less than 1 year survival in high grade tumor.So further reporting of such rare casesis of utmost importance to give risk factors, prognosis and treatment.

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