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Case Report

Asymptomatic presentation of diffuse large B-cell lymphoma as isolated submental lymphadenopathy

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ABSTRACT

Non-Hodgkin lymphoma (NHL) is the most common type of lymphoma, Diffuse larger B-cell lymphoma (DLBCL) being most common type of NHL. Patients usually present at later stage with b-symptoms, lymphadenopathy and organomegaly. Isolated asymptomatic lymphadenopathy is a rare presentation. A 50-year-old female presented with complaints of swelling in the sub mental region. It increased in size over 1month without any associated local or systemic symptoms. On examination a firm, non-tender, mobile swelling of around 2×1.5 cm was present at sub mental region. Abdominal examination revealed no organomegaly. Blood picture- HB- 9.7 gm/dl, TLC- 5200/mm3, neutrophils/ lymphocytes/ eosinophil/ basophils-43.4/44.4/5.1/0.4 and Platelets-2.41 lakhs/mm3. Ultrasonography study was suggestive of necrotic lymph node. Fine needle aspiration cytology demonstrated nonspecific reactive lymphadenitis. After routine pre-operative workup patient was taken up for lymph node excision in elective OR under general anesthesia and the excised lymph node was sent for biopsy. A histopathological diagnosis of diffuse large B-cell lymphoma was made and confirmed with Immunohistochemistry (IHC), (CD20-diffuse positive; CD3-focal positive; Cyclin D-negative; BCL6-positive; CD10- focally positive). Post-operative hospital stay was uneventful. Our case was atypical with asymptomatic presentation with isolated lymphadenopathy with suspicious lymphocytosis. Diagnosis was only possible by histopathology.

Keywords: Diffuse large B-Cell lymphoma, B-symptoms, R-CHOP

INTRODUCTION

Lymphoma is the malignancy of lymphocytes. Recent WHO guidelines categorize lymphoma into three broad types: B-cell, T-cell and Hodgkin's lymphoma.[1] B-cell subtypes are relatively more common compared to others. Non-Hodgkin Lymphoma (NHL) is the most common type and in India constitutes about 59-80% of all lymphomas.[2,3] There are more than 30 subtypes of NHL that have been documented.[1]Diffuse large B-Cell lymphoma (DLBCL) is the most common variety of non-Hodgkin lymphoma, considered as an aggressive subtype.[4] With a slight male preponderance, patients have a median age of 57 years.[5] 3-year event-free survival (EFS) and overall survival (OS) were 80% and 88%.[6] It presents with a rapidly enlarging mass at a nodal more commonly than extra nodal site. It might develop de-novo or from an indolent lymphoma virtually anywhere in the body. Patients usually present with hepatosplenomegaly with B-symptoms (evening rise of them, significant unintentional weight loss (>10% in 6 months], drenching night sweats.[3] We here present a case of asymptomatic patient with isolated submental lymphadenopathy with no systemic symptoms and sign of any other organ system involvement.

CASE REPORT

A 50-year-old female presented in the OPD with complaints of swelling in the sub mental region. The

patient noticed the swelling increase in size insidiously over 1 month and was not associated with any pain, discharge, fever, lethargy or weight loss. Patient had no history of any comorbidities or any significant family history.

On examination a swelling of around 2 cm×1.5 cm, was present at sub mental region, firm in consistency, not fixed to the underlying structures, no skin changes and without any intraoral extension. There were no skin changes suggestive of inflammation.

Abdominal examination revealed no organomegaly. Blood picture- HB-9.7 gm/dl, TLC-5.2k, neutrophils/ lymphocytes/ eosinophil/basophils-43.4/44.4/ 5.1/0.4 and platelets-2.41 lakhs/mm^3. Ultrasonography of the local site showed a well-defined hyper echoic lesion measuring 9.4×7 mm without vascularity, in the intermuscular plane of level 1A region of neck-features suggestive of necrotic lymph node.

Fine needle aspiration cytology demonstrated-Lymphoid cells in various stages of maturation with predominance of intermediary forms and immunoblots against a background of lymphoglandular bodies and RBCs suggestive of nonspecific reactive lymphadenitis. After routine pre-operative workup patient was taken up for lymph node excision in elective OR under general anesthesia and the excised lymph node was sent for biopsy.

A histopathological diagnosis of diffuse large B-cell lymphoma was made and confirmed with Immunohistochemistry (IHC), (CD20-diffuse positive; CD3-focal positive; Cyclin D-negative; BCL6-positive; CD10-focally positive). Post-operative hospital stay was uneventful. Patient was then referred to the Department of radiation oncology for chemotherapy.

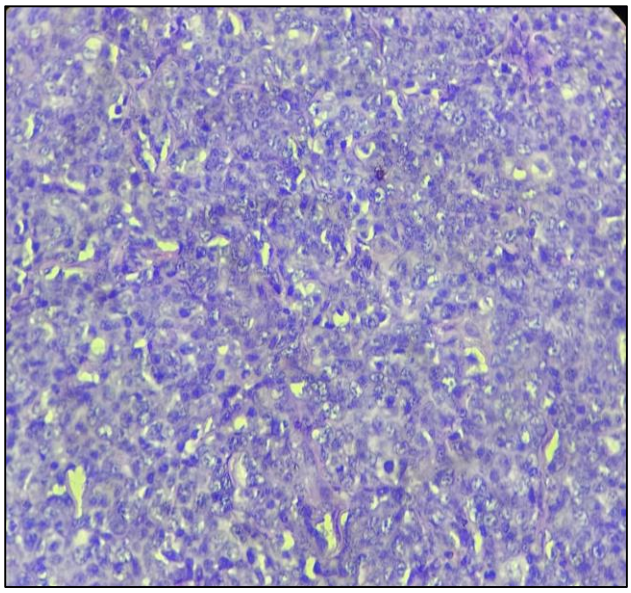

Figure 1: H and E staining.

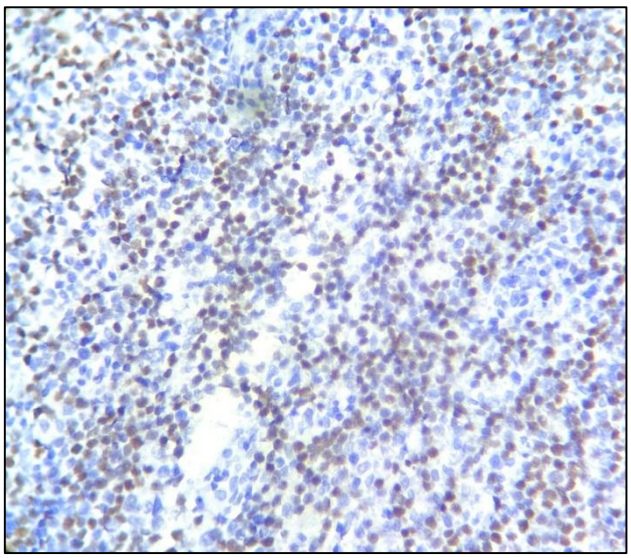

Figure 2: IHC Bcl-6 positive.

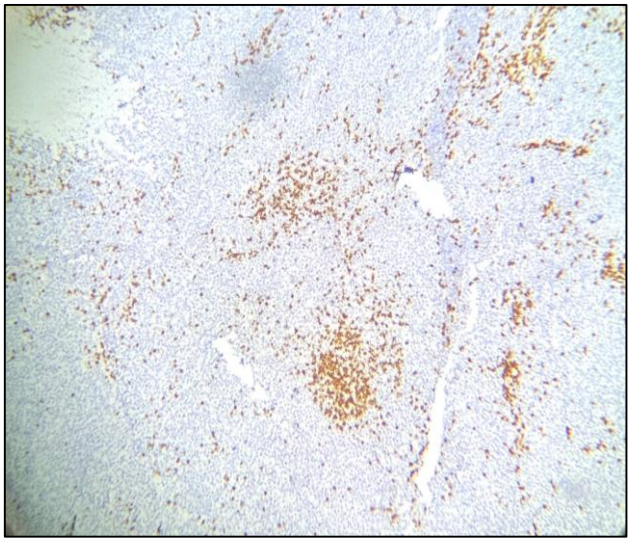

Figure 3: IHC CD3 positive.

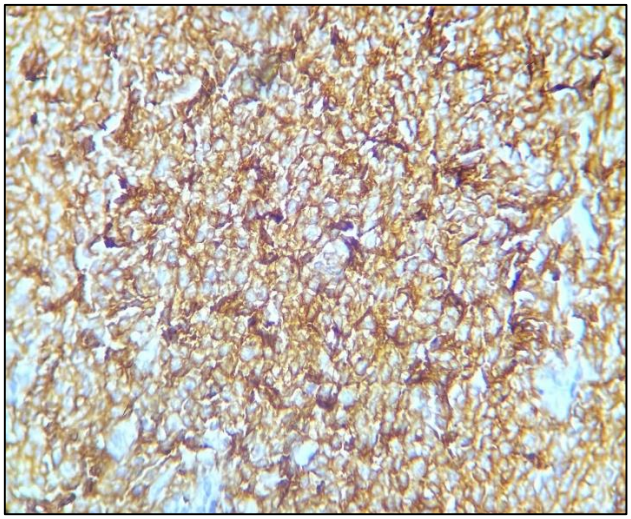

Figure 4: IHC CD20 positive.

DISCUSSION

There are two types of lymphocytes: T lymphocytes (T cells) and B lymphocytes (B cells). DLBCL develops when the body makes abnormal B lymphocytes. Development of B cells can be categorized into 3 stages pre germinal, germinal and post germinal center and B cell lymphomas are most often derived from the germinal center.[7] DLBCL is a high-grade B-cell lymphoma and has different clinical manifestations, morphology, immune phenotype, genetic and molecular alterations.[5] DLBCL is more common in males than females and peaks in the sixth and seventh decade of life.

More the age worse is the prognosis as reflected in prognostic models like the International prognostic index (IPI) score. The B symptoms can be seen in 30% of the patients. Bone marrow involvement is more common in indolent disease and can be seen in up to 50% of the cases.[8] About 9.5% present with bulky disease with abnormal lymphocytes building up in the lymph nodes or other body organs.[9] Patient present with generalized lymphadenopathy, lethargy, recurrent infections, easy bruising and hepatosplenomegaly.

As the name suggests, DLBCL means this type of lymphoma has: a) abnormal B cells that are larger than normal healthy B cells, b) cancer cells in a spread out (diffuse) pattern rather than being grouped together. DLBCL is a common and aggressive form of non-Hodgkin lymphoma. It is characterized by the diffuse proliferation of large B-cells. The clinical presentation varies, but common symptoms include painless lymphadenopathy, systemic symptoms like fever, drenching night sweats and weight loss. The prognosis for DLBCL depends on several factors, including the stage at diagnosis, the patient's age, and overall health. IPI is commonly used to assess prognosis based on factors such as age, stage, and LDH levels.[10]

The patient's initial presentation and response to treatment are consistent with a favorable prognosis. Poor prognostic factors include hypoalbuminemia, involvement of Central nervous system (CNS) or kidney/adrenal gland, high IPI score and use of non-rituximab regimens. R-CHOP regimen has the best outcome amongst all the regimen. These drugs have their own side effects, neutropenia being the most common, followed by anemia and thrombocytopenia, other complications include peripheral neuropathy, diarrhea. Mucositis, vomiting and extravasation. Autologous stem cell transplant is treatment option in cases if progression or relapse. A study by Nair et al, quoted that the 3-year progression free survival was 65% and overall survival was 82.7%.[6]

CONCLUSION

DLBCL is the most common type of NHL and is also the most aggressive form. It is more common in the western countries than in the Indian subcontinent. It is commonly encountered in males. It is usually presents with B-symptoms and lymphadenopathy. Young age is a favorable prognosis, and early diagnosis leads to better outcome and survival. R-CHOP is the most common regimen used with better remission rates. Our case was atypical with asymptomatic presentation with isolated lymphadenopathy with suspicious lymphocytosis. Diagnosis was only possible by histopathology.

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