

Clinical Image

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A rare non-hodgkin's lymphoma: The clinical image

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Abstract

Lymphomas can affect any organ in the body and present with a variety of symptoms, making them relevant to primary care physicians and specialists across different fields. They are categorized into Hodgkin's lymphoma, which constitutes about 10% of cases, and non-Hodgkin lymphoma, the focus of this seminar. Non-Hodgkin lymphoma encompasses a broad range of conditions, from very slow-growing to highly aggressive malignancies. These lymphomas originate from lymphocytes at different stages of development, and their specific characteristics are reflective of the cell type from which they derived. In this case a 62 years male patient came with complaints of multiple swellings over bilateral side of neck and axillary region with associated complaints of difficulty in deglutition and recurrent fever. After all investigations and clinical findings that was diagnosed with a rare condition of non-Hodgkin lymphoma.

Keywords: Cell division; Malignancy; Reticulum cell sarcoma; Surgery; Undifferentiated lymphoma.

Introduction

Lymphomas, ranking third among head and neck neoplasms, stem from the lymphoreticular system. They encompass Hodgkin's disease and Non-Hodgkin's Lymphoma (NHL), marking significant malignancies in this region. Non-Hodgkin Lymphomas (NHL) constitute a diverse set of lymphoproliferative cancers, less predictable than Hodgkin's lymphomas, with a higher tendency to spread to extranodal sites. Approximately a quarter originate outside lymph nodes, often affecting both nodal and extranodal areas, highlighting their varied nature and propensity for dissemination. The important pathogenesis of NHL includes immunosuppressive specially T and B cells, which plays an important role in our immune system regulation and immunity [1]. Immunosuppression in various medical contexts

heightens Non-Hodgkin Lymphoma (NHL) risk, notably in conditions like HIV/AIDS or post-organ transplantation, facilitating Epstein-Barr Virus (EBV)-driven B-cell proliferation. Chronic antigenic stimulation fosters B-cell proliferation, elevating the likelihood of genetic errors, particularly in immunoglobulin gene rearrangements, accentuating factors that drive proliferation as potential sources of genetic mistakes [2].

Case presentation

A 62 years old male patient came to Shalyatantra OPD, Mahatma Gandhi Ayurved College Hospital and Research Centre, Salod, Wardha, with complaints of multiple swellings at bilateral neck region (as shown in Figure 1) associated with difficulty in deglutition since last 1 year. He also had complaints of recurrent fever, cold from last 2 months. Patient gave history loss of body

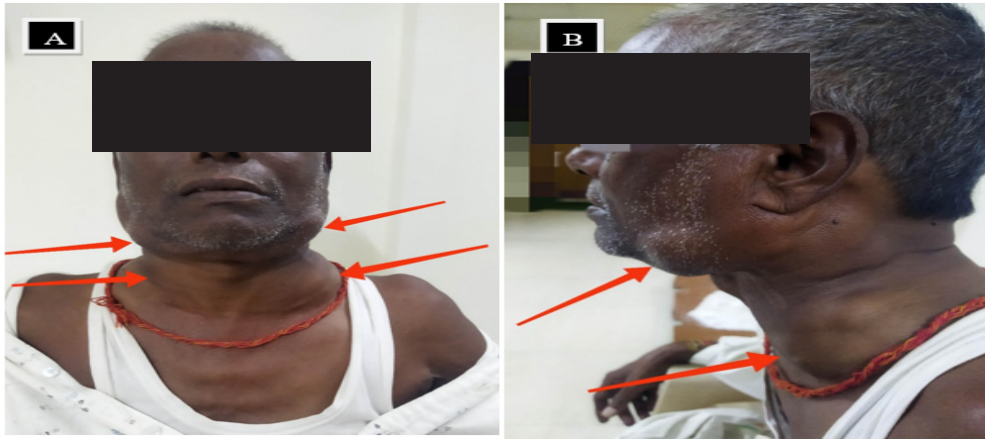


Figure 1: (A,B) Non-Hodgkin's Lymphoma of bilateral cervical region.

weight since last 2 months. He was also a known case of diabetic mellitus and hypertension since 8 years and was on regular medications. There was no any history of PTB and surgery. No significant family history was given by patient. On clinical examination multiple swollen lymph nodes at neck and axillary were found. The of lymph nodes are of different size with largest of diameter approx 8 cm and smallest of diameter 4 cm. Multiple small swelling was also present in groin region. There was no any tenderness and erythema noted at the site of swelling. Patient did not experience any pain since the onset of swelling. For diagnosis purpose USG of neck was done which was suggestive of bilateral scrofula and multi level cervical lymphadenopathy. To differentiate whether lymphoma was benign or malignant FNAC from bilateral cervical nodes was done which was suggestive of reactive lymphadenitis and Non-Hodgkin's Lymphoma. CT ABDOMEN and HRCT were done to rule out extra nodal lymphadenitis which was suggestive of multiple retrocrural, mesenteric, retroperitoneal and pelvic lymphadenopathy with hepato-splenomegaly. HRCT thorax was suggestive of multiple variable size lymphadenopathies in pre-tracheal, para-tracheal, aorta-pulmonary window, pre carinal, sub carinal, pre vascular, paraaortic, paraesophageal, bilateral axillary, jugulodigastric, submandibular, sub mental, retropharyngeal, supraclavicular region. The most important differential diagnosis was Hodgkin's lymphoma and AIDS. AIDS was removed as patient was HIV non reactive in chromatographic Immunoassay result. FNAC differentiate it from hodgkins lymphoma. From above all investigation and clinical examination it is different from hodgkin's lymphoma, epsteinbarr virus infection, AIDS and on the basis of clinical examination and FNAC diagnosis was confirmed as Non-Hodgkin's lymphoma.

Discussion

Non-Hodgkin Lymphomas (NHL) have a wide set of lymphoproliferative cancers, less predictable than Hodgkin's Lymphomas, with a higher tendency to spread to extranodal sites as present in this case in retroperitoneal, pelvic, pre-tracheal, para-tracheal, aorta-pulmonary window, pre carinal, sub carinal, pre vascular, paraaortic, paraesophageal, bilateral axillary, jugulodigastric, submandibular, sub mental, retropharyngeal, supraclavicular region. Risk Factors for NHL are autoimmune disorders and chronic inflammatory disorders are major risk of NHL. Exposure to ultraviolet rays may lead to NHL. Suffering from immuno- suppressive diseases like AIDS [3]. Occupational conditions like extra exposure to pesticides like organophos-



Figure 2 : Axillary lymph nodes.

phate, phenoxy acid, organochlorines are main risk factors for occurrence of NHL. In the above case patient was farmer by occupation and have over exposure in sunlight that increases the chances of exposure to UV rays also farmers are in close contact with pesticides and fertilizer. These risk factors can be possible for this condition in this case. Cervical lymphadenopathy, the prevalent head and neck manifestation in NHL, features multiple painless nodes, distinct from metastatic nodules, lacking firm attachment to skin or deep planes. NHL typically spreads to non-adjacent nodes, with infrequent mediastinal but frequent abdominal involvement. As the initial point of contact for patients, primary care physicians play a crucial role in diagnosing various types of NHL [4]. Early detection and a multidisciplinary approach are essential for effective management. Increased awareness and research have led to better understanding of risk factors and treatment pathways. Certain medications have shown enhanced efficacy in NHL treatment. Therapeutic strategies vary depending on tumor burden, with newer drug combinations and maintenance therapies improving remission and survival rates. Rituximab-based chemo-immuno-therapy notably benefits patients with diffuse large B-cell lymphomas. In this case firstly we plan chemotherapy for this patient and followed by bone marrow stimulation to produce new cells and steroids for tissue growth and repairment. Recent advancements in biological understanding and targeted drug utilization offer promising chemo-free treatment options, reflecting ongoing progress in NHL therapeutics. These developments underscore the importance of continuous research and collaboration among healthcare professionals for improved patient outcomes in NHL management [5].

Conflict of interest: Declare as none.

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