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Original Research Paper

Oral Pathology

NON – HODGKIN'S LYMPHOMA OF THE BUCCAL MUCOSA: A RARE CASE REPORT

Dr. P. Pooja sri*	1st year PG student, Department of Oral Pathology and Microbiology, Karpaga Vinayaga Institute of Dental Sciences, Madhurathakam Tamil Nadu. *Corresponding Author
Dr. S. Kanimozhi	1st year PG student, Department of Oral Pathology and Microbiology, Karpaga Vinayaga Institute of Dental Sciences, Madhurathakam Tamil Nadu.
Dr. S. Marytresa Jeyapriya	MDS Reader, Department of Oral Pathology and Microbiology, Karpaga Vinayaga Institute of Dental Sciences, Madhurathakam Tamil Nadu.
Dr. M. Sathish Kumar	MDS Professor and Head, Department of Oral Pathology and Microbiology, Karpaga Vinayaga Institute of Dental Sciences, Madhurathakam Tamil Nadu.
Dr. A. Mathan Mohan	MDS., FHNS Dean and Professor, Department of Oral and Maxillofacial surgery, Karpaga Vinayaga Institute of Dental Sciences, Madhurathakam Tamil Nadu.

ABSTRACT Lymphomas are malignant neoplasms. They are classified into Hodgkin's and Non-Hodgkin's lymphoma. NHL develops primarily within the lymph nodes, however approximately 24% of NHL affect the extranodal sites. There is increased prevalence of NHL in immunocompromised individuals. NHLis a group of diverse malignancies affecting organs and tissues that do not contain lymphoid cells. The signs and symptoms of NHL are tooth mobility, localized swelling with ulcer, unexplained dental pain, or ill-defined lytic osseous changes. In the head and neck the primarily NHL is present in Waldeyer's ring, Oral mucosa, Salivary glands, Laryngeal tissue, Paranasal sinuses and Osseous structures.NHL can be a B-cell or T-cell as cell of origin. Oral NHL are commonly Diffuse B- cell type. Immunohistochemistry (IHC) plays a vital role in distinguishing the cell types and differential diagnosis. The mainstream treatment of Diffuse large B-cell lymphoma is chemotherapy and alternate treatment is surgery. Here, we discuss a rare case of Non - Hodgkin's lymphoma of the buccal mucosa.

KEYWORDS : Non-Hodgkin's lymphoma, Immunosuppressed patients, Diffuse B-cell lymphoma, Immunohistochemistry

INTRODUCTION:

Lymphomas are malignant neoplasms of the lymphocyte cell lines.[1] They are classified into Hodgkin's and Non- Hodgkin's lymphoma [NHL].[2]NHL are a group of neoplasms that develop from the cells of lymphoreticular system.[3]

NHL develops primarily within the lymph nodes, however approximately 24% of NHL affect the extranodal sites. The most common extranodal sites are GIT, skin, and bones.[4] In the head and neck the primary NHL is present in waldeyer's ring, oral mucosa, salivary glands, laryngeal tissue, paranasal sinuses and osseous structures.[5]

There is increased prevalence of NHL in immunoco mpromised individuals.[6] Here, we present a rare case of NHL of the buccal mucosa.

Case Report:

A 75- year- old female patient reported to our institute with the complaint of swelling in the right buccal mucosa which had been gradually growing in size for the past 6 months. Past medical history revealed that she was diagnosed with NHL(B-cell lymphoma) of cervical lymph nodes in 2018. She was treated with radiotherapy and chemotherapy for the same and the post-treatment follow-up for 2 ½ years did not show recurrence. On extraoral examination no palpable cervical lymph nodes were noted.

Intraoral examination showed an ulceroproliferative lesion in the right buccal mucosa in relation to 44,45. The surface of the lesion was firm and tender on palpation. Based on the clinical findings and past medical history, provisional diagnosis of malignant lymphoproliferative lesion was made. Differential diagnosis are Oral squamous cell carcinoma, sarcoma and metastatic tumor.

An incisional Biopsy of the lesion was done under LA and was sent to the department of oral pathology for Histopathological examination(figure 1,2,3)

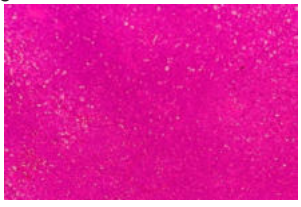

Figure 1 : Photomicrograph shows round cell scanty cytoplasm and prominent basophilic nuclei. nuclear membrane is discontinuous enclosing reticulated chromatin. nucleoli is indiscernible.cytoplasm is very scanty , deep blue in color and agranular. (10X)

The histopathological features were indicative of malignant lymphoproliferative lesion.

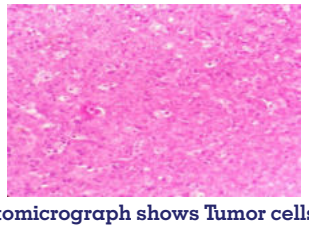

Figure 2 : Photomicrograph shows Tumor cells interspersed with cellular drop out, foamy macrophages, apoptotic bodies (10X)

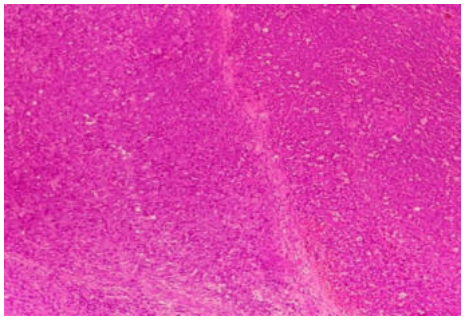

Figure 3: photomicrograph shows delicate fibro-collagenous tissue traversing the entire tumor (10X)

As the patient had a previous history of B-cell lymphoma, immunohistochemical [IHC] analysis was done (figure 4,5). The IHC profile confirmed the clinical and histopathological diagnosis of NHL(B-cell lymphoma).

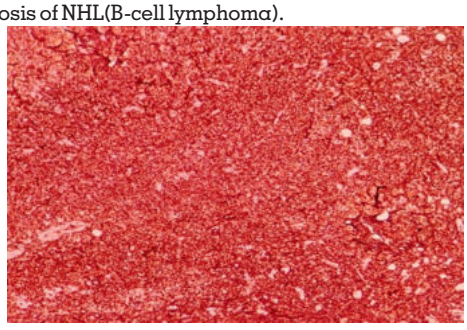

Figure 4 : Photomicrograph of IHC staining for CD20 antibody shows a diffuse strong membrane positivity (10 X)

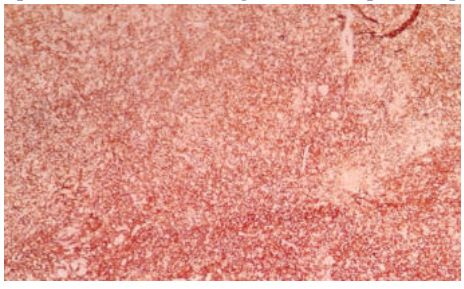

Figure 5 : Photomicrograph shows IHC staining for CD45 antibody (10 X)

The patient was referred to a cancer institute for further management of NHL.

DISCUSSION:

NHLis a group of diverse malignancies affecting organs and tissues that do not contain lymphoid cells.[7]

Oral cavity accounts for 2-3% of cases. [4]The incidence is 60-70 years of age.[1] It affects males more than females.[8] The most common site is waldeyer's ring.[9] NHL has been reported in congenitally immunosuppressed patients.[2]

The signs and symptoms of NHL are tooth mobility, localized swelling with ulcer, unexplained dental pain, or ill-defined lytic osseous changes.[8]

NHL can be a B-cell or T-cell as cell of origin.[10] Diffuse B-cell lymphoma [DBCL] is the most common subtype of NHL.[11] Oral NHL are commonly DBCL type.[12]

For the diagnosis of NHL, excisional biopsy and other diagnostic tests are required.[10]

CT has become an important radiographic study of the head for patients with CNS involvement.[12] Histopathology evaluation along with IHC study is required for diagnosis.[4]

Microscopically, Diffuse lymphomas consist of large tumor cells with large nuclei that are more than twice the size of lymphocytes.[4]

The treatment of DBCL is radiotherapy and chemotherapy.[13] The alternate treatment is surgery.[7]

CONCLUSION:

The prognosis and overall survival is good in NHL, with early diagnosis and prompt treatment.[10]

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