Non-Hodgkin Lymphomas on right side of Maxilla: A rarest Case Report

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ABSTRACT: Non-Hodgkin lymphomas are a heterogeneous group of malignancies of the lymphoid system. It is a rare entity to be reported when it comes to its effect on zygomatic buttress area, the purpose of this article is to report such an unusual case of Non-Hodgkin's lymphoma on zygomatic buttress.

KEYWORDS : Non-Hodgkin, Lymphoma and Zygoma.

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INTRODUCTION

Non-Hodgkin lymphoma is cancer that begins in cells of the immune system. Non-Hodgkin lymphoma begins when a lymphocyte (usually a B cell) becomes abnormal. The abnormal cell divides to make copies of it. The new cells divide again and again, making more and more abnormal cells. The abnormal cells don't die when they should. They don't protect the body from infections or other diseases. The buildup of extra cells often forms a mass of tissue called a growth or tumor.

Non-Hodgkin lymphoma is known to be associated with chronic inflammatory diseases such as Sjogren syndrome, celiac disease, and rheumatoid arthritis. Chronic infection also is associated with the lymphoma pathogenesis as shown by the association between mucosa-associated lymphoid tissue (MALT) lymphomas and Helicobacter pylori infection.[1]

Incidence of Non-Hodgkin lymphoma in the oral cavity is very rare (*1.5 -3 %, on hard palate*)

SYMPTOMS

- Swollen, painless lymph nodes in the neck, armpits, or groin
- Unexplained weight loss
- Fever
- Soaking night sweats
- Coughing, trouble breathing, or chest pain
- Weakness and tiredness that don't go away
- Pain, swelling, or a feeling of fullness in the abdomen.

DIAGNOSIS

Physical exam (*swollen lymph nodes in neck, underarms, and groin*), Blood tests (*high level of Lactate dehydrogenase*), Chest x-rays, Excisional biopsy, Incisional biopsy or Fine needle aspiration.

TYPES

There are many types of lymphoma.

- Diffuse large B-cell
- Follicular
- Marginal zone B-cell, MALT
- Peripheral T-cell
- Small lymphocytic
- Mantle cell
- Mediastinal large B-cell
- Anaplastic large-cell
- Burkitt's / Atypical Burkitt's
- Lymphoblastic
- Lymphoplasmacytic

The most common types are diffuse large B-cell lymphoma and follicular lymphoma.

STAGING

- Stage I: Lymphoma cells are in one lymph node group.
- Stage II: Lymphoma cells are in at least two lymph node groups on one side of the diaphragm.
- Stage III: Lymphoma is in lymph nodes above and below the diaphragm.
- Stage IV: Lymphoma cells are found in several parts of one or more organs or tissues.

CASE REPORT

A 41-year-old male patient came to the department of Dentistry, S.P medical college, Bikaner with the complaint of pain and rapidly enlarging swelling on the right side of the palate. The patient did not give any history of systemic illness or trauma to the head and neck region. The patient was a farmer by profession. There was no significant contributing family history. The patient has given a history of bidi smoking since 20 years. The patient was a resident of the Khajuwala region of Western India. The patient noticed the swelling on the right side of the palate since 2 months. The swelling started 2 month back when the patient noticed the loosening of teeth in the maxillary posterior region.

Extraorally, mild swelling was seen. Pre-auricular & Sub-mandibular lymph nodes were palpable. Intraorally, a single growth was seen extending from Right maxillary lateral incisor toward the maxillary tuberosity region and was extending laterally toward the midline of the palate. The swelling was ulcerated as the patient gave a history of repeated smoking. The teeth on the affected side were displaced to the palatal side [Fig. 1].

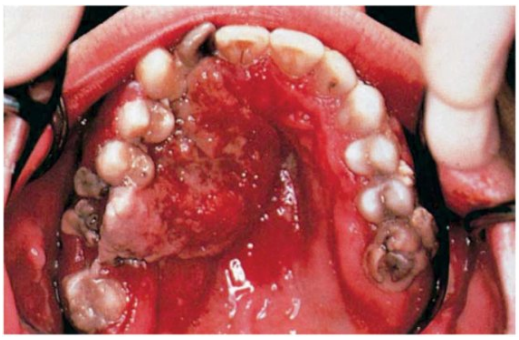

Figure: Growth present on right side of maxilla

The complete blood count revealed a high level of lactate dehydrogenase (LDH). An excisional biopsy was performed and the

specimen was sent to the department of Pathology of S.P medical college, Bikaner. Histologically, there was multifocal involvement of extranodal tissues. The tumor was composed predominantly of centrocyte-like (CCL) cells morphologically resembling a range from lymphocytes to monocytoid cells. The proportion of CCL cells showed plasmacytoid differentiation. Clusters of CCL cells were typically invading and destroying the epithelium to form lymphoepithelial lesions. The tumor cells were proliferating in the marginal zone and expanding around reactive lymphoid follicles.

DISCUSSION

MALT lymphomas are indolent in nature and commonly present with localized disease, but gastric MALT lymphomas require a different therapeutic approach if associated with H pylori. The stomach is the most frequent site of involvement, but MALT lymphomas also may involve the lung, thyroid gland, salivary gland, breast, or eye orbit.[1]

MALT lymphomas that present in organs other than the stomach are treated with curative intent with local radiation therapy, provided the disease is limited to the involved primary organ or site. In gastric MALT lymphoma, the proliferation of the lymphoma cells has been shown to be associated with the presence of H pylori. Combination therapy with omeprazole, metronidazole, and amoxicillin to eradicate the infectious agent has resulted in regression in earlier cases and is used commonly as frontline treatment.

Of note, tumors invading beyond the sub-mucosa or lesions with a translocation t (11;18) are less likely to respond to H pylori eradication. Radiation therapy for patients not infected by, or failing to respond to, H pylori eradication consists of approximately 30 Gy directed to the stomach and perigastric lymph nodes.[2,3] For patients in whom this therapy fails, Rituximab or chemotherapy, or in some cases surgery, has been used. For patients with MALT lymphoma at other sites presenting with localized disease, surgery or radiation therapy produces durable remissions. Patients with disseminated MALT lymphoma are treated similarly to patients with follicular lymphoma.

CONCLUSION

Currently, multiple new and novel agents are being developed for treatment of NHL. Molecular profiling of tumors has allowed the prognosis to be determined more accurately and has potentially identified new targets for treatment. New monoclonal antibodies against a wide range of T-cell and B-cell surface markers are in clinical development.

Other strategies, including vaccine strategies, antisense oligonucleotides, and other novel small molecules, are being developed for treatment of this disease. Future studies will need to be done to determine their role in the NHL.

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