

## Lymphoma of the Alveolus: A Rare Entity

### Alveolar Lenfoma: Nadir Bir Antite

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#### ABSTRACT

Extranodal lymphoma of the oral cavity accounts for 3.5% of all oral cavity malignancies. Its rarity poses a challenge to clinicians in diagnosing this entity in the clinical setting. Common sites of extranodal lymphoma are in the gastrointestinal tract. In the oral cavity, palatine tonsils predominates the site of origin as the histology of the Weldeyer's ring structure is composed mainly of lymphoid follicles. Herein, we are reporting a case of an elderly gentleman who presented with a history of loosening of teeth followed by painless swelling over the hard palate which turned out to be non-Hodgkin's lymphoma. Histopathological with further immunohistochemistry study revealed a B-cell type of non-Hodgkin's lymphoma. Albeit rare, extranodal non-Hodgkin's lymphoma ought to be considered as a differential diagnosis for oral cavity tumour especially with a palatal swelling post-tooth extraction.

**Key Words:** Lymphoma, Non-Hodgkin, B-cell lymphoma, hard palate

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#### ÖZET

Ağız boşluğunun ektranodal lenfoması tüm ağız boşluğu malignitelerinin% 3,5'ini oluşturur. Nadir görülmesi, klinik ortamda bu varlığı teşhis etmede klinisyenlere zorluk oluşturmaktadır. Ektranodal lenfomaların yaygın yerleri, gastrointestinal sistemdedir. Ağız boşluğunda Weldeyer'in halka yapısının histolojisi esas olarak lenfoid foliküllerden oluştuğu için bademcikler orijin bölgesidir. Burada, dişleri gevşetme öyküsünün sert damağın ağrısız şişmesine dönüştüğü yaşlı bir erkek hastada gelişen non-Hodgkin lenfomayı bildirmektediriz. İleri immünohistokimyasal çalışma ile histopatolojik olarak B hücreli non-Hodgkin lenfomayı ortaya çıkardı. Nadir görülen, ektranodal non-Hodgkin lenfoması, özellikle diş çekimi sonrası ağızda şişlik ile giden ağız boşluğu tümörü için ayırıcı tanı olarak düşünülmelidir.

**Anahtar Sözcükler:** Lenfoma, Non-Hodgkin, B-hücreli lenfoma, sert damak

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#### INTRODUCTION

Non-Hodgkin's lymphoma (NHL) are characterised by abnormal clonal proliferation of B cells, T cells or both. Adult NHL are mostly B-cell origin (1). Extranodal (NHL) accounts for 40% of all lymphoma which may occurs in any tissue or organ (2). The head and neck is the second most common site for extranodal NHL following gastrointestinal tract (3) and carries a very good prognosis when treated early. Within the head and neck region, the Weldeyer's lymphoid tissue are commonly affected which accounts for 5-10% of all lymphomas. Amongst the Weldeyer's lymphoid system, tonsils are most frequently affected followed by nasopharynx (4). Hence, an isolated palatal involvement is considered a rare manifestation and may oftentimes be overlooked as an inflammatory mass.

#### CASE REPORT

An 81-year-old Indian gentleman with underlying hypertension was referred with a history of painless, swelling over right upper alveolus for three months. According to patient, he initially presented with loosening of right upper molar which post-extraction caused diffuse swelling over right upper alveolus and right upper buccal region. There was however, no trismus, no per oral bleed, no foreign body sensation or any dysphagia or odynophagia. There was also no accompanying nasal symptoms, neck swelling or any constitutional symptoms or B symptoms. Patient was a non-smoker, non-alcoholic and no prior history of betel nut or tobacco chewing. His family history is also not contributory.

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Upon review, patient was comfortable. Intraoral examination revealed an ulcerative growth measuring 3 cm x 2 cm over the right posterior half of hard palate, alveolus extending to the gingivobuccal sulcus firm in consistency, non-tender, non-friable and bleeding upon touch (Figure 1). There was also no medialization of the posterior pharyngeal mass, tonsils were not enlarged and the overlying mucosa was intact. No palpable neck nodes were noted.

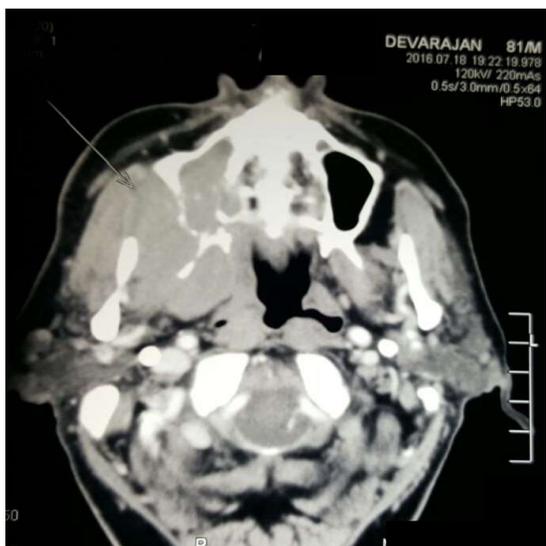


**Figure 1:** Ulcerative mass occupying right-side of hard palate, alveolus and buccal

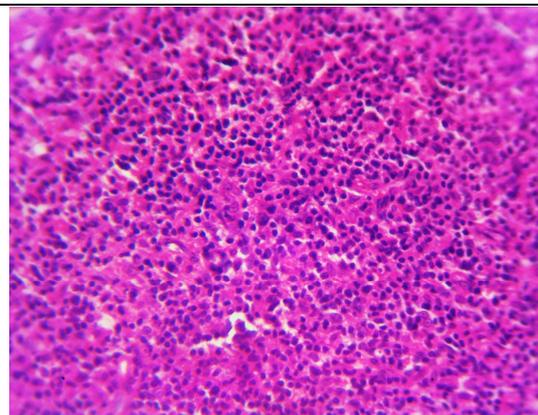
Laryngoscopy performed revealed no further extension. Nasoendoscopy and otoscopy also revealed no abnormality. Neck palpation revealed no mass, laryngeal crepitus was intact. Systemic examination was also unremarkable and vital signs were within the normal range. His blood parameters were also normal and showed no signs of coagulopathy. In the light of patient's history and clinical examination, preliminary diagnosis of squamous cell carcinoma of right upper alveolus was made.

Computer tomography of vertex till upper thorax revealed homogenous soft tissue mass occupying right hard palate and buccal region, right maxillary sinus with destruction of inferior and medial wall of maxillary sinus (Figure 2). He was counselled for a biopsy under general anesthesia.

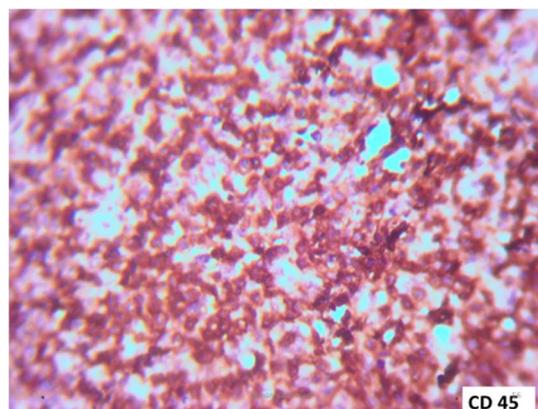
The patient subsequently underwent examination and biopsy under general anaesthesia. Intraoperatively, multiple deep biopsies were taken from the mass. There was minimal bleed which was successfully cauterised and post-operatively, patient was well and was discharged home the next day. Histopathological examination of the mass sent revealed NHL with features of bizarre lymphocytes replacing normal architecture of the underlying extranodal tissue in a diffuse pattern (Figure 3). To identify the subtype of NHL, immunohistochemistry (IHC) was done with CD45 (Figure 4) and CD20 which was positive for B-type. Patient was referred to the haematology unit for chemotherapy.



**Figure 2:** Soft tissue mass occupying right hard palate extending to right maxillary sinus with evidence of destruction of inferior and medial wall of maxillary sinus (Thin arrow)



**Figure 3:** Non-Hodgkin's lymphoma evidenced by bizarre lymphocytes with large and hyperchromatic stains



**Figure 4:** Immunohistochemistry was positive with CD45

## DISCUSSION

Malignant lymphoma are tumours of the lymphoid system which can be categorised into Hodgkin's Lymphoma and non-Hodgkin's lymphoma (NHL). Non-Hodgkin's lymphoma originates from cells of lymphoreticular system. Isaacson and Wright first described the lymphomas arising from the mucosa-associated lymphoid tissue (MALT) in the gastrointestinal tract and coined the term B-cell lymphoma (5). 20% of oral NHL takes place in the palatal tissue (6).

Albeit, myriad theories which has been postulated regarding the causative factor, NHL secondary to virus is regarded to be most plausible one. NHL are also seen mostly in immunosuppressed patients or patients receiving immunosuppressive therapies (7). Many a times, it may be the first presentation of acquired immune deficiency syndrome (AIDS).

Head and neck involvement generally involves the paediatrics age group (8). Our patient however, is an elderly gentleman. As for the presentation, palatal lymphoma usually presents as non-tender, non-ulcerative mass (9) and has a very indolent nature, as in our case. Imaging, notably computed tomography scan plays an important as to assess the extension of the mass, bony destruction, and the site and route for biopsy to further aid in diagnosis.

Gold standard of diagnosis of palatal NHL is definitely from the histopathological examination of the biopsied mass with features of bizarre lymphocytes. Lymphoma cells are large with abundant cytoplasm and irregular nuclei. Immunohistochemistry is necessary to differentiate between benign lymphoid hyperplasia and lymphomatous lesion (9) as well as identifying the subtype of lymphoma. Lymphomas are usually submucosal as compared to squamous cell carcinoma which appears ulcerative. Other differential diagnosis than oral cavity squamous cell carcinoma includes benign lymphoid hyperplasia, epulis, gingivitis, pregnancy granuloma, vascular-angio granuloma, HIV-related oral lesion and tuberculosis should be considered (10).

Treatment of extranodal NHL generally are chemotherapy and radiotherapy irregardless of its location as surgery acts only as a diagnostic purpose to provide material for histopathological examination. Some extranodal lymphomas may be removed surgically, for instance lymphomas of the thyroid and spleen. Having said that, some authors prefer to observe in cases whereby the excision biopsy has removed the entire mass in addition to a negative margin (11). Positive margin post-operation warrants local radiotherapy.

**CONCLUSION**

Extranodal non-Hodgkin's lymphoma, despite its rarity should be considered in the differential diagnosis of an isolated oral cavity mass as this entity has a good prognosis if recognised and treated early.

**Conflict of interest**

No conflict of interest was declared by the authors.

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