



## PRIMARY B CELL LYMPHOMA OF TONGUE- A RARE CASE REPORT

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### **Abstract:**

Malignant lymphoma of the oral cavity is rare (2-3%). The gingival vestibule and Waldeyer's ring seem to be the most frequent sites of occurrence whereas the lingual and buccal mucosa is rarely involved. We here present a case of B-cell lymphoma in a 55 year old male who presented with a mass lesion primarily involving the tongue. Although lymphoma of tongue is very uncommon, it should always be considered in differential diagnosis of various benign and malignant lesions in this region. A proper clinical evaluation, histopathologic as well as immune histochemical evaluation of biopsy specimen may aid in the diagnosis and thus, help in proper management.

**Key words:** Lymphoma, non-Hodgkin, tongue

### **Introduction:**

Primary Non-Hodgkin's Lymphoma (NHL) represents the third leading malignancy of oral cavity, after squamous cell carcinoma and salivary gland tumors [1]. The most affected sites in decreasing order of involvement are tonsils (55% of oral cases), palate (30% of cases) and genial mucosa (2% of cases). Sporadic cases may involve the tongue (2% of cases), the buccal floor (2% of cases) and the retromolar trigone (2% of cases) [2].

### **Case report:**

A 55 year old man presented with slowly growing painless swelling of the tongue, difficulty on deglutition and hoarseness of voice since 2 months. Local examination revealed a hard, nodular lesion diffusely involving the tongue (Figure 1). Other parts of the oral cavity, oropharynx and neck as well as rest of the physical examination was within normal limits. There was no significant lymphadenopathy. He was HIV negative. His routine investigations including complete hemogram, urine analysis and chest X-ray

did not revealed any significant abnormality. Clinically diagnosis of epithelial malignancy was made. Biopsy was performed. Grossly, biopsy was received in multiple pieces measuring together 1.8x1x1 cm. Histopathological examination revealed stratified covered epithelium with sub epithelium tissue revealing infiltration by round to oval nuclei with stippled chromatin, prominent nucleoli and scanty amount of cytoplasm. (Figure 2) A diagnosis of poorly differentiated round cell tumor was considered. A panel of IHC markers were applied for typing. On Immunohistochemistry these cells were positive for LCA (leukocyte common antigen) and negative for Cytokeratin (CK), Vimentin, Chromogranin, Synaptophysin, S-100 and HMB-45. A diagnosis of non-Hodgkin lymphoma (B cell type) was made. Further IHC panel was applied. These tumor cells were positive for CD 20 and negative for CD 3. A diagnosis of non- Hodgkin lymphoma (B- cell type) was made.

The patient was extensively investigated for other sites of involvement. Bone marrow aspiration, CSF examination, abdominal CT scan and ultrasonography were performed. No other sites in the body were found to be involved by the disease. Thus, a final diagnosis of the primary non-Hodgkin lymphoma, B cell type of the tongue was established. The patient referred to radiotherapy department, where he was started with CHOP regimen (Cyclophosphamide, Vincristine, Adriamycin and Prednisone) and kept on follow up.

### **Discussion:**

Extranodal sites are primarily involved by NHL in 20 to 30% of cases. The head and neck is the second most common region for extranodal lymphoma after the gastrointestinal tract [2].

Primary malignant lymphoma of the oral cavity is rare (3-5%), and that of the tongue even rarer [3]; It generally affects the elderly, especially over the 6th decade of life [2]. There are no characteristic clinical features of non-Hodgkin's lymphoma of the oral region. The most common presenting symptoms are local swelling, pain or discomfort and ulcer. The tumor may manifest as a submucosal mass, a polypoid bulky mass with a smooth mucosal surface, or as an ulcerated lesion. Involvement of the intrinsic tongue musculature may cause restriction of movement, dysarthria and dysphagia [2]. Occasionally, the tumor may cause upper airway obstruction which was present in our case. CT and MRI are diagnostic in most cases; the final diagnosis is usually made on biopsy with the help of IHC.[4] Differential diagnosis includes metastatic tumors in the tongue, melanomas, poorly differentiated squamous cell carcinomas, poorly differentiated adenocarcinomas, and other rare tumors such as neuroblastomas, rhabdomyosarcomas and Ewing's tumor [5].

From the small number of well documented case reports of primary extranodal non-Hodgkin's lymphoma of the tongue, little is known about the etiological factors for primary lymphoma of the oral region. Few cases have been reported in which the presenting

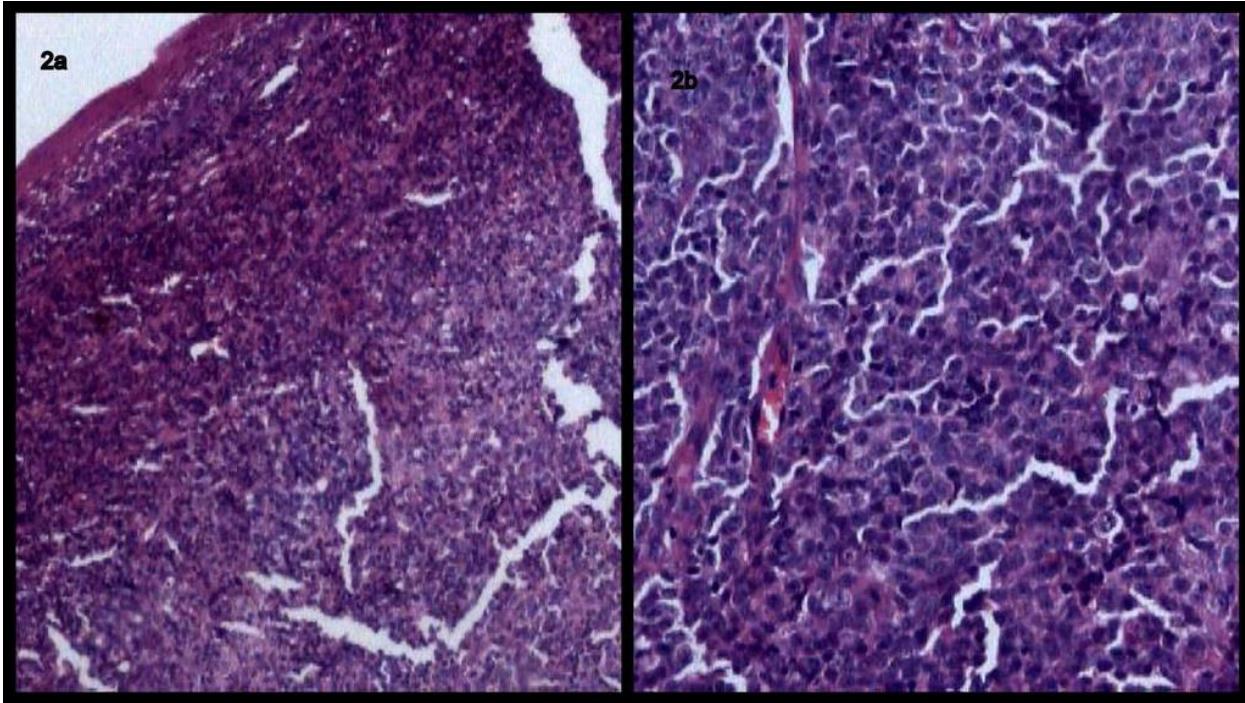
symptom was a submucosal mass with no exophytic lesion or ulceration [5,6]. Of these, only two cases presenting without cervical lymph node involvement have been described [6,7]. In addition, a few cases were associated with Acquired Immune Deficiency Syndrome (AIDS) [2,8].

### **Conclusion:**

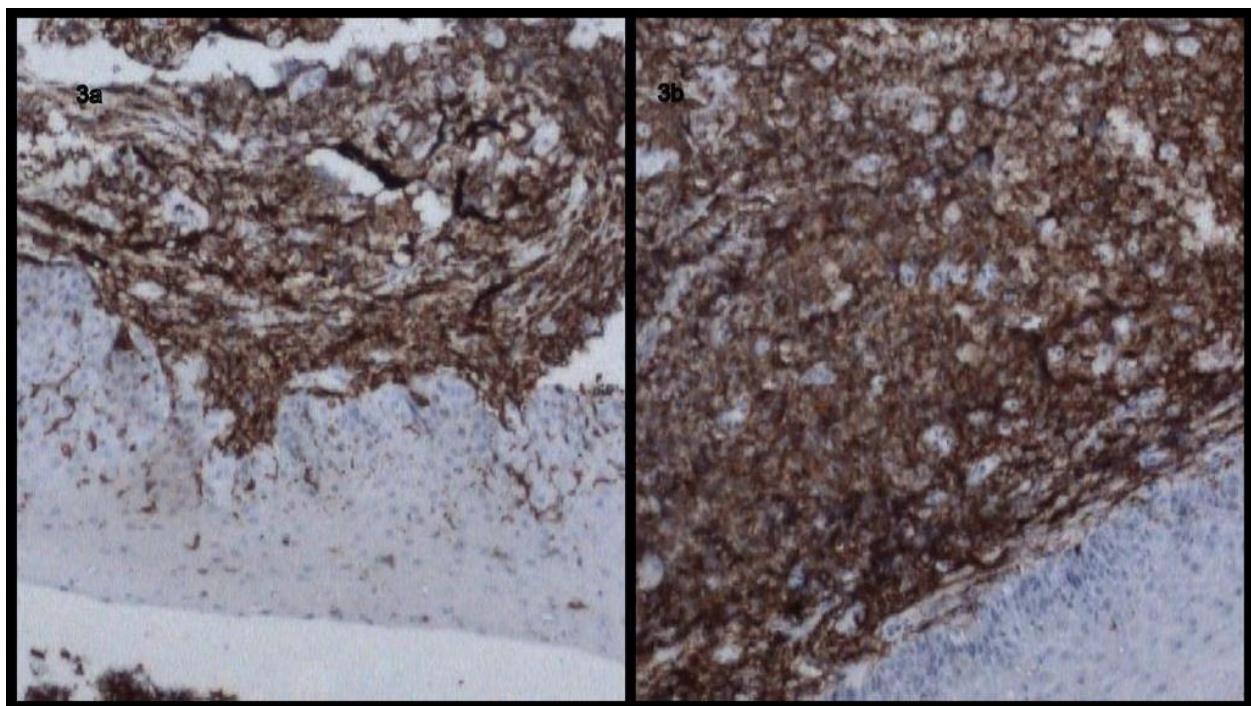
Primary NHL of tongue is a rare entity and is usually misdiagnosed as epithelial malignancy clinically. So, this possibility always be kept in mind while diagnosing the benign and malignant lesions affecting this area. A rapid diagnostic assessment, together with an adequate histopathologic verification, are indeed essential to improve the management and the prognosis of this disease.



Figure showing lymphoma tongue in a 60 years old man



Photomicrograph of H&E section of lymphoma tongue showing tumor cells. Tumor cells with round to oval nuclei, stippled chromatin, prominent nucleoli and scanty amount of cytoplasm.



Photomicrograph showing LCA positivity in tumor cells.(200x) (b) Photomicrograph showing CD20 positivity in tumor cells

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