

# Squamous cell carcinoma of tongue in 22 year young male - An unusual case presentation

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## ABSTRACT

Oral cancer is very uncommon in young adults. Most commonly, squamous cell carcinoma of head and neck present during fifth and sixth decades of life with long history of tobacco and alcohol use. Oral cancer in young patient is estimated to be 3% but increase in 6-7% has been recognized. Most often when cases present in young age group, they are misdiagnosed and inappropriate treatment lead to delay in definitive treatment. This may in turn lead to poor prognosis for these patients at later date. There have been controversies regarding if oral squamous cell carcinoma in young and adults carries an inherently poor prognosis and present with more aggressive tumours. This article reports an unusual case of squamous cell carcinoma of lateral border of tongue in 22 years young male patient who was treated for ulcer with routine antibiotics and presented late to us for definitive diagnosis and treatment.

## INTRODUCTION

Squamous cell carcinoma (SCC) constitute about 94% of all oral malignancies.[1] The most common site being the lateral border of tongue and floor of mouth. SCC rarely occurs in young or before the age of 40 but are considered more aggressive than in older ones. Carcinoma in young patient is estimated to be 3% but increase in 6-7% has been recognized.[2,3] Tongue carcinoma usually manifest in male of sixth to eighth decade of life following long term exposure to cigarette smoking and alcohol abuse. In younger age group, such carcinogenic factors are widely debated. Other factors postulated in younger include immune deficiency, genetic factor, dietary factor and herpes simplex and human papilloma virus infection.[4] The clinical presentation can be exophytic, endophytic, leukoplakic and erythroplakic with visible surface changes[5] Here, we report a case of SCC of lateral border of tongue in 22 year male patient with classical feature of persistent ulceration with induration and peripheral infiltration with red and white staining.

## CASE PRESENTATION

A 22 year old young male presented to the Department

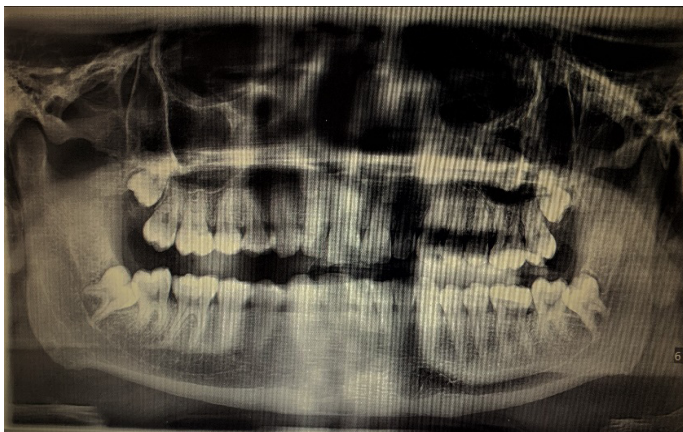
of Oral and Maxillofacial Surgery, UCMS College of Dental Surgery, Bhairahawa, Rupandehi, Nepal with chief complain of ulceration over left lateral border of tongue. The lesion was first noticed about 6 months ago while he was working in abroad since then lesion was gradual in onset with no any associated symptoms like pain and paresthesia. Patient had full course of oral antibiotic as per advice from ENT surgeon over there but there was no significant improvement. After few months, patient describes difficulty in chewing and swallowing. Patient gives positive history of smoking cigarettes (20 cigarettes per day) since 6 years but no history of chewing tobacco was present. The patient was otherwise apparently normal with no any associated medical conditions.

Intraoral examination reveals painless ulceration of size 5 x 3 cm<sup>2</sup> over left lateral border of tongue extending till floor of mouth. The lesion was firm to hard in consistency with red and white staining over surface. The dorsum of tongue was coated with food debris otherwise appeared normal (Figure 1). There was difficulty in tongue movement. No significant finding was noticed with dentition and surrounding bone.



**Fig 1. Intraoral clinical presentation**

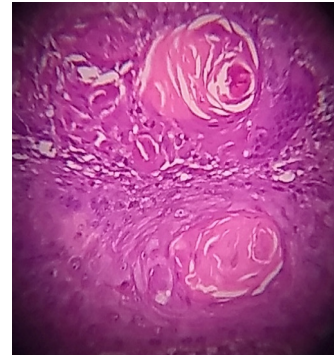
Physical examination revealed lymphadenopathy over left submandibular region. Single, fixed oval lymph node of approximately 5 x 4 cm<sup>2</sup> was noted in left submandibular region. The surface was non ulcerated, smooth and hard in consistency. Orthopantomogram (OPG) was advised to rule out bony involvement if any, but no significant finding was noticed (Figure 2).



**Figure 2. Orthopantomogram (OPG) of patients**

Considering the characteristic of lesion and physical examination finding, provisional diagnosis of oral squamous cell carcinoma of tongue was established. Incisional biopsy was planned after routine blood investigations under local anesthesia. After obtaining written informed consent regarding the procedure and publication of data, incisional biopsy was performed and the specimen was sent for histopathological examination. The biopsy report revealed parakeratinized

stratified squamous epithelium with features of dysplasia (increased nuclear cytoplasmic ratio, marked pleomorphism, nuclear hyperchromatism and increased mitoses) and malignant epithelial island with abundant keratin pearl in underlying connective tissue suggestive of well differentiated oral squamous cell carcinoma (Figure 3).



**Figure 3 : Histopathological microscopic photograph of biopsy tissue**

The clinical TNM staging was found to be stage IV. Patient was advised for computed tomography (CT) scan of face, neck and chest to rule out any metastasis. But due to financial constraint, patient went to government cancer hospital for further treatment.

## DISCUSSION

Squamous cell carcinoma of tongue in young patient is rare but aggressive in nature.[6,7] Literature reveals 4-6% of oral cancer occurs in people younger than 40 years. Most studies differentiate SSC of the tongue by age 40 to define older and younger patients.[8] SCC in young people are often misdiagnosed or not even considered in provisional diagnosis leading to delay in definitive treatment. This may lead to a poor prognosis for these patients. It is debatable if oral cancer in younger people has more aggressive nature and inherently poor prognosis.[9]The case presented here is an example of aggressive tumor with early involvement of regional lymph node (TNM staging IV). The clinical feature in younger patient has no distinguishing feature form that of older patient.

There are conflicting thoughts regarding risk factor in young patient. Most of young patient had no history of smoking or consuming alcohol as seen in older patient or the duration of exposure is too short for malignant transformation to occur.[10] However, this

case shows disagreement as to whether these factor may be contributory in young patient or the exposure may be of relatively short period. The absence of chewing habit is also paradoxical to the common etiology of oral cancer in South East Asia. Thus, other risk factors such as socioeconomic conditions, oral hygiene status, dental trauma, viral infections, diet and immunodeficiency status have also been considered in etiology of tongue cancer in young patient.[11] The tongue is the most common and lethal site for oral SCC because of high rate of regional lymph node metastasis. A study by Pitman et al.[12] shows higher recurrence rate in young adults diagnosed with SCC of the tongue. In the study done by W. Garavello et. al. revealed that young age is itself an independent predictor of worse prognosis.[2] These are important prognostic factor for patient survival. Thus, aggressive nature of tumor demands aggressive primary surgery, radiotherapy or combined modality and hence early referral.

## CONCLUSION

Oral cancer in young adults is a rare. Nevertheless, it should always be considered in such patients with persistent ulceration, leukoplakia, erythroplakia or swellings with no obvious local cause, particularly if it is lateral border of tongue. Early referral is recommended for such lesion in order to increase chances of survival.

## Conflict of interest

None

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