

## Case Presentation

# Chronic Ulcer of Lateral Tongue - A Case Report

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## Abstract

Oral cancer is commonly known as mouth cancer. It can develop in any part of the mouth. More than one million cases arise per year in India itself. Risk factors include tobacco use, heavy alcohol consumption and human papilloma virus. Tongue is one of the most commonly affected site in the oral cavity. It usually develops in the squamous cells of the surface of the tongue which presents most commonly as squamous cell carcinoma. In the present case a sixty six year old male patient complains of ulcer in the lateral border of tongue which was histopathologically diagnosed as squamous cell carcinoma of tongue with metastasis in the left submandibular lymph node. The patient was subjected to surgical excision of lesion followed by radiotherapy.

**Keywords:** Oral Cancer; Papilloma Virus; Tongue; Squamous Cell Carcinoma

## Introduction

Carcinoma of tongue is the second most common malignancy of the oral cavity predominantly affecting males in the sixth and seventh decade of life [1]. The risk factors for this disease are primarily tobacco and ethanol abuse. The most prevalent site is the lateral border of anterior two-third of tongue [2].

Oral cancer is the eighth most commonest cancer in India with male female ratio as 1.7:1.2. Prevalence of carcinoma in the lateral border of tongue is 25-50 % [3]. Oral squamous cell carcinoma (OSCC) is a well-known malignancy that accounts for more than 90% of all oral cancers. Squamous cell carcinoma represents more than 95% of cancers in the head and neck region. It is present typically in elderly males between fifth to eighth decade. Squamous cell carcinoma cannot be diagnosed clinically, it should be supplemented with histological findings. The overall 5-year survival rate in OSCC has not significantly increased in the last few years. The overall and disease-free survival rates are 56% and 58%, respectively. The most important task is to establish an early diagnosis at the first stage of the disease [4].

The case report presents the case of a sixty six year old male patient with an ulcerative lesion on lateral border of tongue which was concluded as squamous cell carcinoma of tongue after histopathological examination.

## Case Presentation

A sixty six year old male patient reported to our dental department with a chief complaint of ulcer in left side of tongue since one month. Pain was present on the same side of the tongue with difficulty in speech and chewing. Bleeding from the ulcer was also present. Ulcer grew from a size of a pea to the present size within one month. There was no history of trauma in the past. Initially the ulcer was asymptomatic. Since two weeks there was an intermittent episode of moderate pain. Patient had difficulty in speech and chewing hard food. Patient had a habit of smoking twenty beedis per day and alcohol consumption for the past 30 years. Patient gives a history of type II diabetes since 2 years and is being treated with Tablet Metformin



Figure 1: Chronic ulcer on the lateral border of the tongue.

1000mg once a day that is taken with evening meal. On extra oral examination left submandibular lymph node was palpable, fixed, non tender and firm in consistency. Intra oral examination shows an ulcer on the left lateral border of the tongue extending from posterior one third of the tongue to the root of the tongue. Uvula was shrunken with restricted forward movements of tongue. Floor shows presence of pseudomembranous slough. Hypermelanosis was also present in the palate and buccal mucosa. Ulceroproliferative growth was seen which is 5x3 cm in diameter (Figure 1). Ulcer has an everted edge which is surrounded by an erythematous area. The ulcer was fixed to the underlying structures. Tenderness, induration and bleeding was present. Based on history and clinical examination a provisional diagnosis of malignant ulcer with TNM clinical staging of T3 N2b M0 was given. Investigations included USG of neck region which revealed enlarged lymph nodes in the left parotid region, jugular spaces and subclavicular region. Fine needle aspiration cytology of the lesion and left submandibular lymph node revealed smears showing good cellularity which were round and polymorphic malignant squamous epithelial cells with pleomorphic nuclei. Moderate to severe degree of pleomorphism and nuclear atypia were seen. Small clumps of eosinophilic keratin like material were seen in a slightly hemorrhagic background. These features confirmed the diagnosis of squamous cell carcinoma of the tongue with metastasis in left submandibular lymph node. Patient was advised for surgical excision of the lesion followed by radiotherapy. Follow up of the patient was not possible as

**Table 1:** Prevalence of oral cancer sites on the surface of tongue.

Site	Occurrence
Middle one third	47%
Posterior one third	20%
Tip	2-3 %
Facio lingual	6%
Dorsum	5-7 %

the patient did not visit the oncology centre for further management.

## Discussion

Oral Cancer Survey reveals that tongue cancer has male dominance and usually occurs in sixth and eighth decade of life [5]. Etiology is multifactorial and related to tobacco use such as cigarette smoking, alcohol abuse and smokeless tobacco (snuff) [6]. It is mostly diagnosed at a later stage, which makes the survival rate lower; lethal for more than half the cases. Squamous cell carcinoma cannot be diagnosed clinically, it should be supplemented with histological finding. Etiology also includes genetic factors and viruses like herpes simplex virus, human papilloma virus. Poor oral hygiene, chronic irritation from sharp tooth, oral sepsis, spices, syphilis, Plummer Vinson Syndrome have also been reported as contributing factors [5].

Carcinoma of tongue is often associated with other potentially malignant/premalignant lesions and conditions such as leukoplakia, erosive lichen planus as well as atrophic glossitis. Vascular and lymphatic networks, which vary between different anatomic sites, may influence tumor evolution and the outcome. Higher metastatic disease rates for Squamous cell carcinoma at the base rather than at the tip of the tongue have been reported. Leite and Koifman showed higher mortality rates in patients with tongue carcinomas than in those who developed lip carcinomas. In addition, some anatomic sites are linked with poorer outcome owing to the rich lymphatic drainage and the local extension being hard to evaluate and manage, such as the superior gingivolabial sulcus [6].

The typical carcinoma of the anterior tongue presents as a painless, indurated ulcer on the lateral border. This area is the preponderant site of origin accounting for three quarters of the carcinomas. The ventral surface is second in order of frequency, followed by the dorsum and the tip (Table 1) [7]. Up to one third of all squamous cell carcinoma of tongue arise in the tongue base and area that extends from the line of the circumvallate papilla to the junction with the base of the epiglottic vallecula and includes the pharyngoepiglottic and glossoepiglottic folds.

As another relatively clinically silent area and not readily visible to self inspection, carcinomas at the base of the tongue are quite sizeable when discovered: 60-90% are T2 or T3 [7]. Metastatic tumours in the oral region are uncommon but may occur in the oral soft tissues or in the jawbones [4]. Metastatic spread from carcinoma of tongue is by lymphatic system and primarily involves deep cervical chain of lymph nodes. The submaxillary and submental lymph nodes are the ones frequently involved. In the present case the patient had metastasis to the submandibular lymph node. The classic feature of a metastatic lesion is persistent ulceration with hardening and peripheral infiltration, either being associated with vegetation, red/whitish staining. Predominant location is lateral border of the tongue

[5].

In differential diagnosis of carcinoma of tongue, deep mycosis, primary syphilis, cancrum oris and tuberculosis can also be considered. Early diagnosis is the most important factor for improving patient survival rates as high as 80-90%. Early diagnosis also minimizes the extent of surgery required [4]. Early detection method used for carcinoma of tongue includes brush biopsy, optical biopsy, saliva based oral cancer diagnosis, light based detection, DNA analysis and laser capture micro dissection [5]. Fine needle aspiration cytology was performed in the present case, which confirmed the diagnosis of squamous cell carcinoma.

The commonly used treatment modulation for tongue carcinoma includes surgery, radiotherapy, chemotherapy and combined modulation [4]. The selection of treatment modality depends upon the tumour factors such as site, size, location and multiplicity, proximity to bone, pathological factors, histology grade and depth of invasion. The patient factor includes status of cervical nodes and medical condition of the patient. In the present case the patient was advised for surgical excision followed by radiotherapy. A strong correlation has been demonstrated between a resection margin free of disease and higher survival rates, with longer time until recurrence of disease [6].

The prognosis of the patient with squamous cell carcinoma with tumour invasion to the submandibular lymph nodes is moderate. Based on the age, systemic condition, habit history the prognosis seemed unfavourable in the present case. However long-term periodic follow-up is required to present any chance of recurrence after treatment completion.

## Conclusion

Ulcerative lesion in the oral cavity should raise the suspicion of a serious issue as in this case of squamous cell carcinoma of the tongue, where the diagnosis should be made through clinical examination and most importantly detailed investigations like Ultrasound, MRI and Fine needle aspiration cytology which can confirm the diagnosis histopathologically and may also provide details for metastasis, prognosis, and management of the patient.

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