



## Retromolar Trigone Carcinoma- A Case Report on 72 Year Old Female

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### ABSTRACT

**Retromolar trigone (RMT)** tumors are very less common and dangerous type of malignancies, spreading very fast into surrounding structures. A 72 yr female presents with chief complaints of pain, ulceration & swelling in left lower back jaw since 1 month with associating factors like difficulty in swallowing, with evidence of loss of appetite and hematemesis since 1 week. Histopathological examination reveals hyperplasia in squamous epithelium in papillary fronds exhibiting full thickness dysplasia and finally diagnosed with ***Retromolar Trigone Carcinoma***. In this paper, we report an unusual clinical presentation of oral squamous cell carcinoma in buccal mucosa which is very less often in clinical scenario.

### KEYWORDS

*Retromolar trigone; Squamous cell carcinoma (SCC)*

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## INTRODUCTION

Cancer starts when there will be a change in cell shape and size with an enormous growth by the formation of a mass like substance known as called a tumor. It is classified as malignant and benign. Malignant tumor suggests that it can be readily grow and spread to distinguished areas of body, on the other hand, benign tumor affirms that the tumor can grow but it will not spread. Generally head and neck cancers describes the cancers which confines to develop in or around the throat, larynx, nose, and mouth. Specifically, the oral cavity and oropharynx, provide us the ability to chew, swallow, talk and breathe. Approximately, more than 90% of oral and oropharyngeal cancers are designated and found to be squamous cell carcinoma, which comprises that they begin in the flat, squamous cells found in the lining of the mouth and throat.<sup>1</sup> Approximately, 94% of all oral malignancies are Squamous cell carcinoma (SCC). The annual incidence and mortality rates vary between different races, genders, and age group.

## CASE REPORT

A 72 yr old female presented with chief complaints of pain and swelling in lower back jaw since 1 month. The ulcer started to show its presence on the left jaw three weeks ago; it was of small size initially and within 1 month gained increase in size. Patient denies any history of accident but she complained of painful sores in mouth. Also, she continues to gripe about difficulty in swallowing since 1 month accompanied with loss of appetite & hematemesis from past 1 week. The patient describes a sense of discomfort, when she was consuming hard food. Furthermore, she had difficulty in speaking and there was often bleeding from her mouth along with halitosis. The medical history of patient was non-contributory. Patient holds the habit of eating beetle leaves from her left side of jaw which reflects that she maintains a poor dental hygiene.

General appearance of the patient was fairly fit where she was oriented to time place and person; her vital signs were even within the normal range. There was no presence of pallor, icterus, cyanosis, clubbing or edema. Her height = 158 cm, weight = 49 kgs; BMI = 19.6. On physical examination, during inspection, oral hygiene was not maintained properly by the patient. Labial mucosa colour was pink and surface was rough in nature. Buccal mucosa surface was rough with thick texture and appearance of nodules along with yellowish discolored pus filled blisters was present in left side of jaw. Gingiva and alveolar mucosa showed hypertrophy and ulcerations were present at Retro molar trigone region. The intraoral hard tissue examination revealed generalized



debilitation and stains on the teeth. One of the lymph nodes of the cervico-facial region was palpable.

Soft tissue examination revealed an ulcer on left lateral border of the jaw surface. It was roughly spherical in shape in addition to sloping edges and averted margins.

Oral cavity examination divulges the presence of irregularly shaped erythematous & the dorsal surface of the tongue was thickly coated. The ulcer was supple, weak and rooted to the underlying tissues. The edges margins base and the nearby areas were amalgamated. No loss of sensitivity on the left side of the tongue was noted. Her hemogram, chest skiagram was normal but in serum biochemistry, alkaline phosphatase levels were increased. ***Incisional biopsy*** under local anesthesia was performed and the specimen was sent for histopathological examination, which revealed a moderately defined Squamous cell carcinoma at trimolar trigone region. The section revealed hyperplasia in squamous epithelium in papillary fronds exhibiting full thickness dysplasia.

***On otorhinolaryngology***, an ulcero proliferative growth involving left GB sulcus radiating to left lateral border of tongue and RMT upto the anterior pillar was detected. On further CECT, ulcerated lesion in left retromolar area adjoining the molar surface was being noted. During MRI, enhancing lesion towards epicenter of left retromolar trigone with extension to ipsilateral tonsillar fossae was observed. Also, it affirms an enlarged and enhancing left level-II A lymph node consequently, diagnosed as moderately advanced local disease **Stage IV A**.

On the basis of above, clinical findings and diagnostic tests, it was ruled out to be stage IV cancer representing with the TNM Classification, **T<sub>4a</sub>N<sub>1</sub>M<sub>0</sub>** due to which the patient was on Palliative care, preceded by Chemotherapy. Drugs administered during the cycle of chemotherapy were Inj. Emeset 8mg, Inj. Pan 40mg, Amikacin Sulfate, Carboplatin, 5-Flurouracil, Hydroxyurea, Paclitaxel, IV fluid DNS 500ml, RL 500ml, and Albumin 5%.

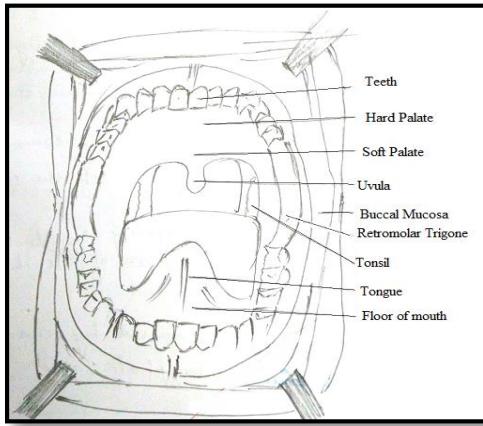
## DISCUSSION

Reviews of many articles depicts that, the ***retromolar trigone*** is defined as an oral cavity which consists of the mucosa posterior to the last mandibular molar. It is roughly a triangular shaped and extends superiorly towards the maxilla along the anterior surface of the mandible.<sup>2</sup> Moreover, the retromolar trigone is a triangular region covered by gingival mucosa and is positioned between the upper and lower third molar and the ascending ramus of the mandible. It is a small mucosal area on the mandibular ramus behind the last molar teeth that attaches to the hamulus of the medial



pterygoid process of the sphenoid bone thus continuing with the maxillary tuberosity. This anatomic area when seen from an oncologic point of view is critical in handling due to its spatial relationship with the surrounding structures. In fact, tumors that involve the retro molar region can extend to nearby muscles; adipose spaces; and other anatomic structures, such as the soft palate, tonsillar fossa, Para pharyngeal space, and floor of the mouth.<sup>3</sup>

Early detection methods that are generally utilised for detection of carcinoma of oral cavity includes biopsies like brush biopsy, optical biopsy, saliva-based oral cancer diagnosis, light-based detection, DNA analysis, and laser capture microdissection.<sup>4</sup> Incisional biopsy with MRI & CECT was performed in the present case and the patient was given a clinical stage of Stage IV A with TNM Classification as **T<sub>4a</sub>N<sub>1</sub>M<sub>0</sub>**.



**Figure 1 Oral Cavity**

In stage IVA, the tumor represents that its size is larger than 4 centimeters and the invasion point is more than 10 millimeters; or cancer has spread to the outer surface of the upper or lower jawbone, into the maxillary sinus, deep muscle of the tongue or to the skin of the face. The patient's cancer had spread to one of the lymph node that is 3 centimeters, on the same side of the neck as the primary tumor; **T<sub>4a</sub>** stands for moderately advanced local disease. The tumor clearly invades into the skin of the face, through the upper or lower jawbone, into the inferior alveolar nerve that allows an individual to feel the teeth and chin area or into the floor of the mouth. **N<sub>1</sub>** stands for Cancer which has spread to a single lymph node on the same side of the main tumor, that is 3 centimeters or less in greatest size, but has not grown outside of the lymph node.

**M<sub>0</sub>** stands for No evidence of distant (outside the head and neck) spread. On the basis, of above clinical findings, the treatment of cancer in the retromolar trigone (the small area behind the wisdom teeth) have been decided and planned in terms of surgery to remove the tumor, lymph



nodes, and part of the jawbone, followed by clinical trial of chemotherapy and radiation therapy, in a pattern that is clinical trial of chemotherapy before or after surgery & clinical trial of hyper fractionated radiation therapy.

Surgery has been always used as a standard treatment of oral cancer. There is necessity of wide excision in or in absence of bone invasion. As usually, when there is deficit of soft tissue, there is necessity of local or regional flap transfer and sometimes free tissue transfer. Subsequently, when there is involvement of bone, marginal or segmental mandibulectomy followed with reconstruction of bone free flaps is required. Also, Radiation therapy could be an acceptable alternative treatment to surgery, with the advantage of being less morbid.<sup>5</sup> The selection of appropriate treatment modalities depends upon tumor factors such as site, size TNM Classification, stage, location and multiplicity, proximity to bone, pathological features, histology grade and depth of invasion. The patient factors include status of cervical lymph nodes, previous treatments, and medical condition of the patient<sup>6</sup>. After making it through treatment, the patient was advised to follow up closely with the doctor. The prognosis of patients with advanced oral squamous cell carcinoma of the oral cavity/RMT is poor.

## CONCLUSION

The oral cavity is the most predominant location for developing of head and neck cancers. RMT carcinoma is a rare tumor and a sub site of the oral cavity. However, it is shown that evidences of chewing of tobacco and beetle leaves is more frequent and RMT is the most common site of the oral cavity where cancers arise, along with the spreading to buccal mucosa & its proximity to the mandible and continuity with the tuberosity of the maxilla, making osseous invasion that specifically gives a matter of concern. There are therapeutic options available and evaluated in the literature are surgery and external beam radiotherapy and Chemotherapy is seldom mentioned. However, RMT carcinoma's treatment part is yet not clearly determined and the prognosis seems to be poor.



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