

Early squamous cell carcinoma of the anterior tongue; Report of two cases

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Abstract: Squamous cell carcinoma (SCC) of anterior tongue is relatively common in India and forms a significant group of all head & neck malignancies. Mucoepidermoid carcinoma, melanoma and adenoid cystic carcinoma are other rare tumors found in the tongue. The purpose of this article is to report two cases of early SCC of anterior tongue which were managed with wide excision. The incidence, etiology, treatment and prognosis are discussed.

Key words: Squamous cell carcinoma, early, anterior tongue.

I. Introduction

Squamous cell carcinoma of anterior tongue is common and accounts for 97% of all malignancies found in anterior tongue. The predilection for males to females has been found to be 3:1. The peak incidence is usually in the 5th and 6th decades but cases have been reported in young individuals too. Carcinoma of tongue is associated frequently with alcohol and tobacco chewing as a common etiology.

The anterior tongue is a movable portion and extends from circumvallate papillae to the junction at the anterior floor of mouth. The anterior tongue is divided into four regions, tip, lateral borders and dorsal & ventral surfaces. Lymphatic drainage from anterior aspect is into submental nodes, and the lateral borders drain into the submandibular and upper deep jugular nodes and communications which occur in the midline can lead to contralateral neck drainage.

The various treatment options for carcinoma of anterior tongue are wide excision, hemiglossectomy and primary excisions alongwith elective neck dissection. Here we show report of two cases of carcinoma of anterior tongue.

II. Case reports

Case 1

A 40 year old man reported to hospital with the complaint of a non healing ulcer over the tongue, since 3 months. It was initially small and it gradually progressed to present size. History revealed the habits of betel nut chewing and smoking. Clinical examination showed a ulcerative lesion in right lateral border of the anterior tongue, measuring 0.5X2.cm (fig.1). Neck nodes were not palpable and on palpation of the tongue induration was there but not crossing the midline. Incisional biopsy revealed moderately differentiated squamous cell carcinoma.(fig.2) Surgery was planned as wide excision of the lesion under general anesthesia. Wide excision is done with adequate safe margins.(fig.3) Hemostasis is achieved and primary closure is done.(fig.4) The post operative recovery was uneventful. The excised lesion was sent to histopathology for assessing margins and depth of tumor extension. Histopathology report suggested that all margins are free and the depth is less than 4mm. Follow up has been done for 2 years and there is no sign of recurrence.

Case 2:

A 30 year old male patient reported to hospital with ulcer over the tongue since one month. Clinical examination revealed a lesion of 1x1.5cm in anterior tongue.(fig.5) There were no palpable lymph nodes. Incisional biopsy is suggestive of well differentiated squamous cell carcinoma of tongue. Wide excision of the lesion is done under general anesthesia. Postoperative histopathology report was suggestive of well differentiated squamous cell carcinoma, with all clear margins and tumor thickness being less than 3 mm. Follow up has been done for 3 years. There is no report of recurrence.

III. Discussion

Squamous cell carcinoma of anterior tongue is relatively common in India and forms a significant group of all head & neck malignancies. The initial evaluation of the patient with anterior tongue cancer begins with a complete history and physical examination. In addition to symptoms produced by tumor, the age and general medical condition of the patient are vital.

The modalities of treatment vary according to the size of the lesion, location and histopathological differentiation. Carcinoma of anterior 2/3 of tongue behaves differently from carcinoma of posterior 1/3. The latter is more prone to be poorly differentiated and to have nodal metastasis¹. An adequate, wide surgical resection will control early carcinoma of the anterior tongue. Advanced cancers of the anterior tongue, clinical stages of III and IV, should be widely excised and the cervical lymph nodes on the side of the primary lesion must be treated by surgery and radiation therapy².

Tumors occupying anterior few centimeters of the tip of tongue have low metastatic rate, so with these tumors it is therefore best to resect malignancy widely and defer intervention in the neck. Another exception may be for superficial carcinomas, often arising in areas of preexisting leucoplakia such lesions are not necessarily small in area but, if there is no significant palpable infiltration of tongue musculature the risk of spread to cervical nodes is minimal³. Micheal J Veness et al⁴ concluded that elective treatment to the ipsilateral neck is not indicated in all patients with anterior tongue cancer. However for patients with tumor thickness more than 5mm it is recommended that they undergo treatment to ipsilateral neck.

Hannal vargha et al⁵ suggested that younger patients need aggressive initial treatment and close surveillance for recurrence. In addition a diagnosis of poorly differentiated Squamous cell carcinoma on biopsy is even a stronger indication for neck dissection.

Tumour thickness is an important predictive marker for lymph node metastases. As such, it can help in decision-making with regard to management of the primary tumour and neck, a wait-and-see policy is only warranted for superficial lesions with tumour thickness of less than 7 mm.⁶

Takahiro Asakage et. al⁷ revealed in their study that the patients, with stage I / II carcinoma of tongue > 4mm in thickness with moderately or poorly differentiated squamous cell carcinoma have high potential for post operative cervical metastasis. Fukano et.al⁸ suggested that there is a discerning point at 5 mm of tumor depth at which cervical metastasis is probable. Electric neck therapy (surgery or irradiation) is strongly indicated for tumors exceeding 5 mm invasion.

The control of carcinoma of the anterior aspect of the tongue is closely related to the extent of the primary tumor and the state of the regional lymph nodes. The most important prognostic factor is the status of cervical lymph nodes. Treatment failures were most common in the cervical nodes; only 40% of patients with recurrent cervical disease could be cured. The size and differentiation of the lesion, as well as the adequacy of surgical margins, appeared to be related to regional failures.⁹

IV. Conclusion

Although the size, differentiation of the lesion, as well as adequacy of surgical margins appeared to be vital in the treatment of anterior tongue cancer, the overall prognosis is unpredictable even when patients are treated following guidelines according to TNM staging. It requires a large prospective randomized multicenter study and early detection of cervical lymph node metastasis is obviously very important for improving survival.

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Fig.1 Case 1. Preoperative



Fig.2 Histopathologic Picture

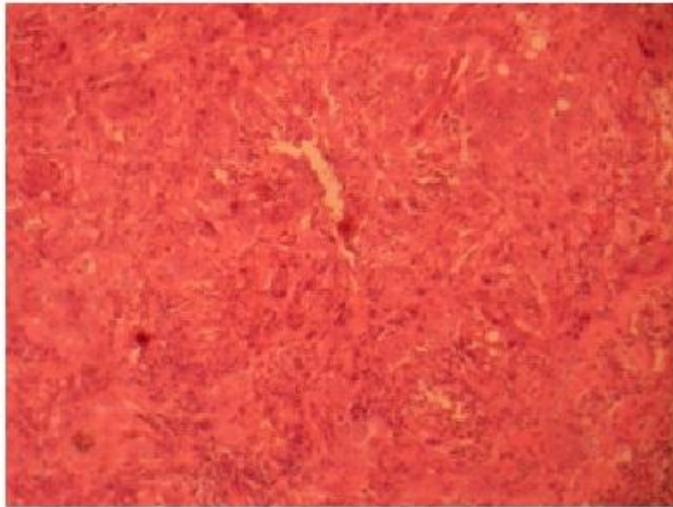


Fig.3 Post Excision Of The Lesion



Fig.4 After Primary Closure



Fig.5 Case 2 Preoperative.

