



Case Report

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Squamous Cell Carcinoma of lower lip: A Review and Case Report

Dhawal Rajendra Mody¹, Vrushali Lathiya²

¹ Associate Professor, Dept. of Periodontics, VSPMs Dental College & Research Centre, Hingna Road, Nagpur, Maharashtra 440019, India

² Assistant Professor, Dept. of Periodontics, VSPMs Dental College & Research Centre, Hingna Road, Nagpur, Maharashtra 440019, India

Abstract

Background: The prevalence of Squamous cell carcinoma (SCC) accounts for about 25% of all the oral cancers. The surgical treatment plan comprises of excision of tumour, dissection of lymph node and tissue reconstruction for restoring functions. **Case presentation:** A 58-year-old patient reported with a painful mass on lower lip. It was an ulceroproliferative lesion on the right side of the lip and measures 15x9 cm in size. The excisional biopsy when taken showed moderately differentiated squamous cell carcinoma. **Conclusion:** Excision of tumour, lymph node dissection and reconstruction are the ideal treatment modality that is followed for SCC of lip. Selection of reconstruction method is dependent on several factors and V-Y advancement flap which is commonly employed presents a leading edge in the treatment of carcinomas of lower lip.

Keywords: Squamous cell Carcinoma, Oral cancer, Lower lip, Reconstruction.

INTRODUCTION

Squamous cell carcinoma (SCC) is a metastatic neoplasm of the epithelial cells and occurs due to the abnormal malignant proliferation of the keratinocytes. It is also called as squamous cell epithelioma or spinolioma^[1]. More than 90% of lip carcinomas are squamous cell carcinomas. Predilection of SCCs is mostly seen in the lower lip which can metastasize to neck contrary to basal cell carcinomas commonly found in upper lip with rare lymph node metastases^[2-4]. Although, the clinical manifestation of SCC are diverse, like erythematous patches, nodules etc but it usually presents as indurated well demarcated ulcerative lesions^[1]. It can occur in normal skin, although it most often originates in previous cutaneous lesions, such as solar keratosis, leukoplakia and radiodermatitis. SCC is more common after 50 years of age in men, usually by a greater exposure to the sun. People with fair skin and immunosuppressed patients are also more susceptible^[2]. With respect to the oral cancers, the frequency of cancer of the lips has been reported to be around 6 to 20%^[3] and in another study of Lotfi Ben Slama conducted at the Salpêtrière Hospital, the authors report the frequency to be 2%^[4]. Despite of their low incidence of occurrence (1-2%),^[1-4] the cancers of lip are extremely important from the clinical and surgical point of view because of the various morphological and functional changes involved. More than 90% of tumours of lip are squamous cell carcinomas (SCCs). However, some adenocarcinomas deriving from the minor salivary glands and Basal Cell Carcinomas (BCC) can be observed and less often melanomas, sarcomas and lymphomas. BCCs are more commonly associated with the upper lip and do not usually demonstrate lymph node involvement^[3].

CASE REPORT

A 52-year-old male patient reported to the Outpatient department of the Department of Periodontics and Implantology with a chief complaint of painful mass on lower lip since 15 months without any pain and bleeding. The lesion started as a shallow ulcer on the lower lip which gradually progressed into a much bigger proliferative mass. The patient also complained of difficulty in eating spicy food along with loss of weight & appetite. The history of tobacco chewing habit in the past 20 years was also given. The clinical examination revealed ulcero proliferative growth on lower lip (Fig. 1 a & b). The lesion measured 15x9 cm in size. On palpation, submandibular lymph nodes were palpable, soft, non-tender, and mobile measuring 1x1cm in size. On intra oral examination, patient's lower arch was edentulous with poor oral hygiene.

*Corresponding author:

Dr. Dhawal Rajendra Mody

Associate Professor, Dept. of Periodontics, VSPMs Dental College & Research Centre, Hingna Road, Nagpur, Maharashtra 440019, India
Email: periowell@gmail.com

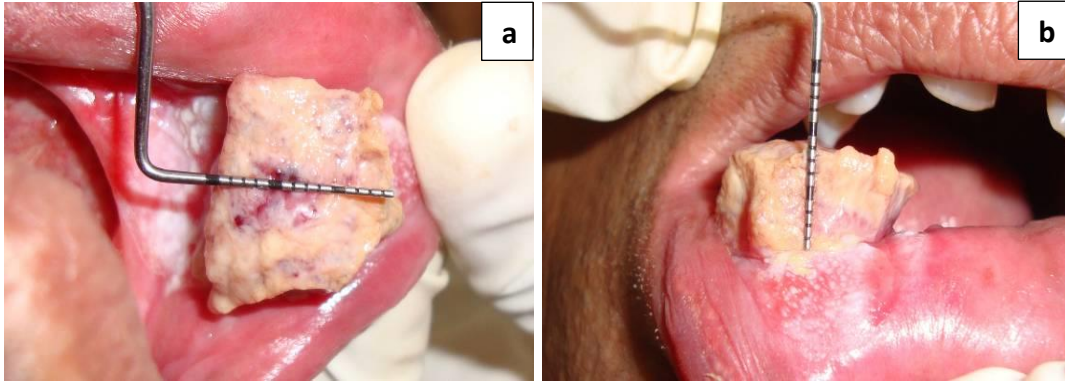


Fig 1: (a & b) The lower lip showing an ulceroproliferative lesion

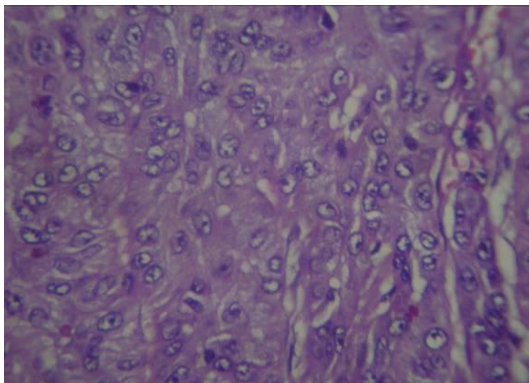


Fig 2: H & E section showing the of infiltration of the squamous epithelium into the connective tissue

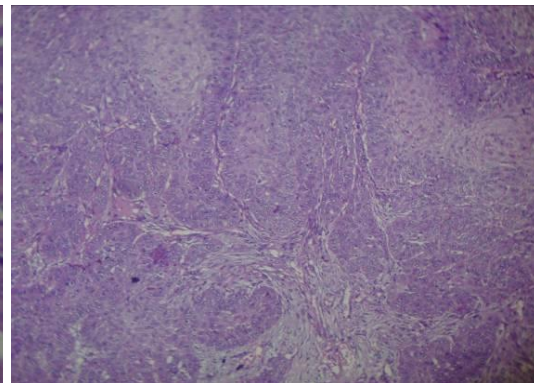


Fig 3: H & E section showing the presence of keratin pearl in the connective tissue

No abnormality was detected in laboratory investigations. Provisional clinical diagnosis of Squamous cell carcinoma of the lip was given. Excisional biopsy was taken and submitted for histopathological confirmation.

H & E-stained sections revealed stratified squamous epithelium infiltrated into the connective tissue along with extensive keratin formation in the form of plugging (Fig. 2). The epithelium showed basilar hyperplasia, increased nuclear cytoplasmic ratio and prominent nucleoli. Lymphocytes and plasma cells were predominantly present in the connective tissue. Few keratin pearls and mitotic figures were also evident (Fig. 3). Histopathological features confirmed the provisional diagnosis of moderately differentiated squamous cell carcinoma of the lip.

DISCUSSION

Tumour excision, lymph node dissection and reconstruction remain the primary therapeutic modality for treating the patients with cancer of lower lip. When the defect is large, Bilateral V-Y advancement flap can be utilized in the reconstruction with adequate cosmetic and function outcome for low-income patients [5],11

Functional reconstruction aims to safeguard sensation, movement, sphincter continence, and verbal communication [6].5 The factors that influence the lip reconstruction are not only the extent and location of the lip defect but also the quality and quantity of adjacent lip and cheek tissues. A careful approximation of the vermilion border and maintenance of the skin tension lines. stress-free are prime requisites of a lip reconstruction treatment [7]. 6 Wedge excision and primary closure should be employed for the lesions involving less than 1/3 of the lower lip Lesions involving 1/3rd –2/3rd of the lips should be treated with lip switch or local advancement flaps. Moreover, local or distant tissue closures should be used for correction of lesions more than 2/3 of the lip [6],5

Karapandzic flap is basically a single stage procedure and the mainstay treatment for the defects involving greater than 2/3 of the lower lip. Karapandzic flap helps in preserving native neurovascular supply and maintains a senate lip with intact sphincter function [8],7

The tumour width (the maximum diameter of the lesion) is a significant prognostic factor for the determination of the metastatic potential of SCC [9],8 Several studies have demonstrated a significant correlation of tumour size with the extent of metastasis [10,11],9,10 In a study done by Quaedvlieg P J F *et al*, the authors concluded that tumour width is significantly associated with metastatic potential. The risk of metastasis is three times when the size of the lesions is ≥ 20 mm as compared with lesions < 20 mm.

CONCLUSION

Detection of new tumours in their initial stage of development along with systematic follow up and regular thorough check up helps in treating a particular case with high probability of cure.

Conflict of interest

The author reports no conflicts of interest.

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