CASE REPORT

A RARE CASE OF GINGIVAL SQUAMOUS CELL CARCINOMA

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ABSTRACT

Squamous cell carcinoma is a malignant epithelial neoplasm characterized by variable clinical manifestations. When located in the gingiva, this neoplasm may mimic common inflammatory lesions. This is a case report of squamous cell carcinoma of the gingiva, where the patient had no known risk factors for the development of this neoplasm.

Keywords: Oral cancer; squamous cell carcinoma; gingival neoplasms.

Introduction

A neoplasm, as defined by Willis, is an abnormal mass of tissue, the growth of which exceeds and is uncoordinated with that of normal tissues and persists in the same excessive manner after cessation of the stimuli which evoked the change.1 The term Oral Cancer encompasses all neoplasms that originate in the oral tissues. Oral Squamous Cell Carcinoma is a serious health concern, and is one of the leading cancers in India and South east Asia.2 Many unique features of gingival squamous cell carcinoma clearly delineate it from Oral Squamous Cell Carcinomas (OSCC) arising in other sites. Except for carcinoma of the lip vermilion, the most common sites of oral OSCC are the tongue and floor of mouth, followed at a lower frequency by the soft palate, gingiva and buccal mucosa.3,5 This neoplasm is more frequent in males than in females, but this is not observed in cases of OSCC located in the gingiva.3,4 Gingival OSCC can mimic a multitude of oral lesions especially those of inflammatory origin, in addition predisposing and presenting factors are different from those of other OSCC. Squamous cell carcinoma (SCC), however, comprises 90-95% of all oral malignancies.3 In general, OSCC affects subjects after their fifth decade of life.4 The etiology of OSCC remains unknown, but predisposing factors such as smoking associated with heavy alcohol use are well known.2 Other habits have also been associated with OSCC, such as chewing betel leaves and reverse smoking practices commonly observed in India.6

Case Report

A male patient aged 26 years reported with a complaint of a swelling in relation to the upper right front gums, present since two months. The swelling was painless, however he complained of mild pain associated with food lodgment and bleeding on brushing. The patient had been to a dentist earlier for which antibiotics and analgesics were prescribed for the symptomatic relief. The patient did not have any tobacco related habits. Medical, family and occupational histories were non-contributory. A diffuse swelling was noticed in the right submandibular region. The submandibular, jugulo–digastric and jugulo–omohyoid lymph nodes were palpable, non tender, firm and movable. There was a localized diffuse enlargement present on the gingiva in relation to 11, 12, 13 and 14, measuring about 4 cm in length and 3 cm in width. On the labial surface, the lesion extended anteriorly up to the mid labial region of the central incisor, posteriorly up to the disto buccal line angle of the canine (Figure 1). Superiorly the lesion extended into the vestibule and inferiorly it extended up to the gingival margin (Figure 1). Palatally, the lesion does not cross the mid line and extends anteriorly up to the mid palatal region of the central incisor and posteriorly up to the mid palatal region of the first premolar. Superiorty it extends close to the mid line but does not cross it and inferiorly it extends up to the marginal gingival (Figure 2). The surface was reddish and ulcerated and the lesion easily bled on probing. The margins of the lesion were rolled (Figure 1). On periodontal examination there were deep probing depths measuring 8-10 mm and Grade I mobility was present in relation to 11, 12 and 13. There was no recession seen as shown in Figure 1. However all the other teeth were periodontally sound and showed no signs of disease. Trauma from occlusion was also ruled out as there were no signs of a traumatic bite. The radiograph showed a well circumscribed radiolucency extending up to the apical third with loss of lamina dura and interdental bone in relation to 11, 12, 13 and 21.

The cytosmears of Submandibular Lymph Node showed numerous malignant epithelial cells with a good number of mitoses. The cytological features were suggestive of a metastatic epithelial malignancy probably a squamous cell carcinoma. The lesion presented squamous epithelial cells invading the connective tissue in the form of cords and islands. The cells resembled normal keratinocytes with a few islands showing keratin pearl formation. Inflammatory cell infiltrate was seen in the connective tissue. A final diagnosis of Squamous cell carcinoma of gingiva in relation to 11, 12, 13, 21 was made based on the histopathological report.

Discussion

Squamous cell carcinoma is the most frequent malignant neoplasm of the mouth, corresponding to 96% of all malignant tumors in this region. In general, Squamous cell carcinoma mainly affects males older than 40 years and is extremely rare in young patients.7 The most affected sites in the mouth are, in decreasing order, the lower lip, lateral border of the tongue, retro molar region, floor of the mouth, and gingiva.8 Although the clinical presentation of the Squamous cell carcinoma varies according to the affected site, the degree of differentiation and the invasiveness or the exophytic characteristics of most lesions are noticed in the ulcerative stage. Squamous cell carcinoma of the gingiva more frequently involves the mandible than the maxilla8 and is mainly observed in females older than 50 years.4 However, some investigators have reported a
Gingival Squamous cell carcinoma does not show a strong association with classical risk factors such as tobacco use, either smoked or chewed in its various forms especially when associated with excessive consumption of alcohol. In the present case, the patient had never consumed alcohol or used any other tobacco products. Carcinoma of the gingiva usually is manifested as an area of ulceration which may be purely an erosive lesion or may exhibit an exophytic granular or verrucous type of growth. It may or may not be painful. The attached gingiva is more frequently involved than the free gingiva. On the gingiva an exophytic carcinoma may assume a serpiginous form. Similar corroborative features are found in the present case. In the maxilla, gingival carcinoma often invades into the maxillary sinus, or it may extend onto the palate or into the tonsillar pillar. In most cases, the metastasis may come across such cases, hence the clinician must have the expertise to diagnose and recommend appropriate treatment to the patient.

**Conclusion**

Carcinoma of the gingiva is rare, but occasionally the clinician may come across such cases, hence the clinician must have the expertise to diagnose and recommend appropriate treatment to the patient.

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**How to cite this article**


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**Source of Support:** Nil

**Conflict of Interest:** None Declared