Case Report

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ORAL SQUAMOUS CELL CARCINOMA: AN UNUSUAL PRESENTATION

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ABSTRACT:

Squamous cell carcinoma of the oral cavity is the most commonly occurring malignancy. The stage of diagnosis is crucial because it is directly related to the prognosis of the patient. Gingival squamous cell carcinoma, due to its varied clinical appearance possesses a diagnostic challenge. Also, early invasion of bone occurs due to its close relation to teeth and periodontium which further contributes to a poorer prognosis. A rare case of gingival squamous cell carcinoma has been reported here, in a 45 year old male patient. The diagnosis was misleading due to the benign appearance of the lesion. Although angiosarcoma and acantholytic squamous cell carcinoma represents different tumour entities theoretically, their histological features are similar. Therefore, advanced diagnostic aids were helpful in giving the final diagnosis.

Key words: Gingival squamous cell carcinoma, acantholytic squamous cell carcinoma, angiosarcoma, Immunohistochemistry.

INTRODUCTION

Squamous cell carcinoma is the most frequently occurring malignancy of the epithelium of the oral cavity. The most commonly involved sites are the tongue, oropharynx and floor of the mouth. Less frequently, the lesions may be present on the lips, gingiva, dorsum of tongue and palate. [1] Acantholytic squamous cell carcinoma (ASCC) is a variant of squamous cell carcinoma characterized by loosening of the intercellular bridges, resulting in acantholysis. Gingival squamous cell carcinoma (GSCC) contributes to 6.3% of the oral carcinomas in the age group of 36 and 65 years. [2] The manifestation of GSCC is atypical and can mimic various different lesions of the oral cavity. And this may become a diagnostic challenge.

The paper presents a rare case of a 45 year old male who presented with a gingival lesion which was incorrectly diagnosed clinically as pyogenic granuloma rather than gingival squamous cell carcinoma.

CASE REPORT:

A 45 year old male patient reported to the Department of Oral Medicine and Radiology, with the chief complaint of

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pain and growth in the lower right posterior region of jaw since 1 month. Pain was intermittent and dull in nature that aggravated on mastication. The growth was initially small in size and patient also noticed blood discharge from the growth on provocation. His medical history was non-contributory. Patient was a chronic smoker (1 Packet, 10-12 times a day) and had quit the habit of guttkha chewing since 1 year.

On examination, a well defined growth of approximately 3 x 2 cm in size was present on the buccal aspect of the mandibular right first and second molars involving the marginal and attached gingival. The lesion extended anteroposteriorly from the mesial aspect of lower right first molar upto the distal aspect of the lower right second molar, while inferosuperiorly it extended from the depth of the right buccal vestibule to 5mm coronal to the occlusal plane of the posterior molars. The growth was brownish purple in colour with intermittent erosive areas and the surface was lobulated . On palpation, the growth was soft in consistency, non-tender, non-indurated, pulsations were absent and was associated with bleeding on provocation. There was associated homogeneous leukoplakia involving the entire right buccal mucosa and the associated teeth showed grade I mobility (Fig 1). Extraoral examination revealed a solitary, palpable, firm, non-tender and mobile right submandibular lymph node. Radiographs revealed no abnormality in the same region (Fig 2).

A provisional diagnosis of pyogenic granuloma was made and the lesion was excised under general anaesthesia as the lesion was highly vascular and was deeply attached to the adjacent teeth. The adjacent teeth were also extracted at the time of excision. When patient reported on the 7th postoperative day for follow up, healing appeared satisfactory (Fig 3). But then patient reported after another 4-5 days, with a larger growth in the same region (Fig 4). At the same time the histopathological report was obtained and it was suggestive of intermediate grade angiosarcoma (Fig 5). Immunohistochemistry was advised to the patient for confirmation of the diagnosis. The tumour cell expressed CK (AE1/AE3), CK 5/6 and CK 8/18 (focal) and were immunonegative for EMA, CD34, CD31, ERG and P63. The tumour was finally diagnosed as poorly differentiated and acantholytic gingival squamous cell carcinoma. Patient was then shifted to a cancer research institute where he underwent hemimandibulectomy alongwith level 5 radical neck dissection of the involved side. The patient is recovering without any complications since the last 2 months.

DISCUSSION:

The characteristic feature of the GSCC is its variation of the clinical features when compared to the squamous cell carcinoma of other regions in the oral cavity. GSCC are usually painless and the most common site for such tumour is the posterior mandible area; as was present in our case.[3] Females are more commonly

affected .[3,4,5] Usually GSCC is found in patients with no habit and is least associated with tobacco.[4] Carcinoma of the gingival typically presents as an area of ulceration which may be erosive or exophytic granular or may be verrucous type of growth. These tumours are easily mistaken for periodontal disease or pyogenic granuloma in dentulous patient.[3] Similarly, in our case, clinically the tumour was misdiagnosed as pyogenic granuloma. Histopathologically due to the presence of abundant vascularity, dissociation of tumour cells and absence of intercellular bridges, keratin pearls or single cell keratinisation, the tumour could not be recognized as squamous cell carcinoma and was misinterpreted as angiosarcoma. On immunohistochemistry, the final diagnosis of poorly differentiated acantholytic squamous cell carcinoma was offered.

Histopathologically, as there is formation of anastomosing spaces and channels in ASCC, it closely resembles angiosarcoma. Moreover, both the tumors show comparable clinical appearance in the oral cavity. Angiosarcoma occurs frequently in the seventh decade of life while oral ASCC are more commonly seen in the sixth decade of life. In the oral cavity, both the tumours are fast growing, eruptive lesions and also have a poorer prognosis. ASCC, like oral squamous cell carcinoma shows a male predilection of 1-3.5 while the gender predilection of oral angiosarcoma is unknown. Not only clinically, histopathological pattern of angiosarcoma and ASCC are also similar. Similar features on histopathological staining are seen and also this tumour entities show overlaps of cytokeratin-expression and of expression of various vascular differential markers. The distinguishing features of both entities are the expression of Fli-1 in angiosarcoma and cytoplasmatic immunoreaction for γ2-chain of ln-5 in ASCC. Not only histologically, ASCC also differs from the common oral squamous cell carcinoma by its aggressive nature. Therefore, when it occurs in the oral cavity, it is always associated with a poorer prognosis.[6] Moreover an immunohistochemical typing is required commonly to differentiate ASCC from angiosarcoma, as the epidermoid differentiation may be extremely obscured by pseudovascular proliferation.[7]

CONCLUSION:

Early detection of squamous cell carcinoma is vital as the stage of diagnosis is an important predictor of long term prognosis. GSCC is one of the important malignancies which needs to be diagnosed early as the lesion rapidly spreads into the underlying bone and cause devastating effect. Due to the varied clinical behaviour, GSCC are often misdiagnosed leading to delay in diagnosis which further contributes to a poorer prognosis. Hence, even though rare the dentists must be aware of such lesions of the gingiva; which often are misleading on clinical examination.

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FIGURES:

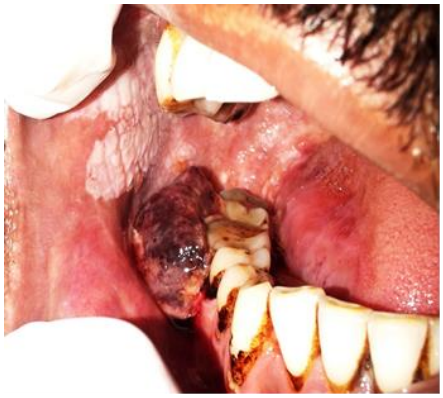

Figure 1 Preoperative photograph of the lesion and the homogeneous leukoplakia on the adjacent right buccal mucosa

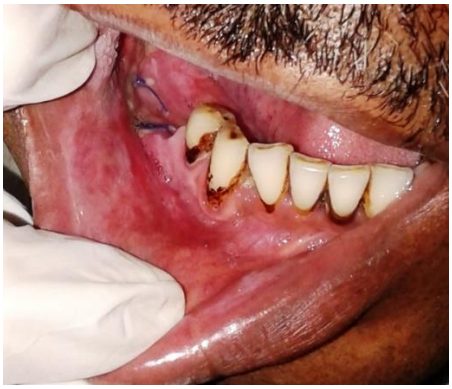

Figure 3 Postoperative photograph after 7 days

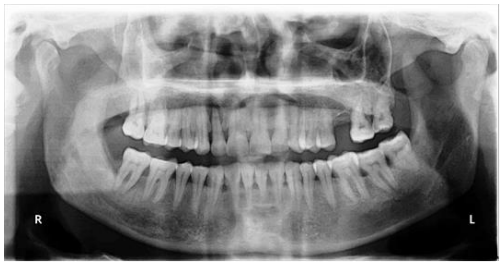

Figure 2 Orthopantomogram

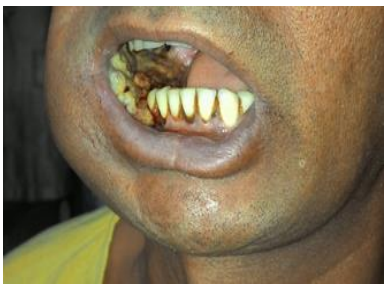

Figure 4 Recurrence of rapidly proliferating growth after 10 days

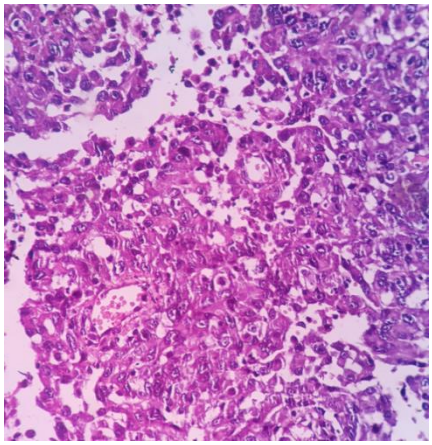

Figure 5 H & E stained sections showing angiogenesis