

Papillary Squamous Cell Carcinoma: A Rare Variant of Oral Squamous Cell Carcinoma

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Abstract

Case Report

One of the most common malignancies of oral cavity is Squamous Cell Carcinoma but its variant Papillary Squamous Cell Carcinoma (PSCC) has rarely been reported. An accurate diagnosis important for both prognostic and therapeutic purposes. We present a case of 50 years old man who came to the surgery out patient department with the complaint of swelling and pain in the left lower alveolus which was diagnosed by histopathology as Papillary Squamous Cell Carcinoma.

Keywords: Papillary Squamous cell carcinoma, oral cavity.

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INTRODUCTION

Parkhill in 1986 described that Papillary Squamous Cell Carcinoma is clinically rare variant of Squamous Cell Carcinoma of the upper aerodigestive tract mucosa. Very few cases have been reported so far [1]. Men in the 6th and 7th decades are predominantly involved [2, 3]. Larynx, oropharynx and nasopharynx are most commonly involved Papillary Squamous Cell Carcinoma. Herewith, a case of papillary Squamous Cell Carcinoma of the oral cavity has been reported to focus its clinical features and histopathological pattern.

CASE REPORT

A 50 years old man reported to the out patient department with the complaint of swelling and pain in the left lower alveolus since 15 days. Patient was apparently healthy, moderately built and nourished with no known systemic illness. History revealed that a small swelling was seen 15 days back in the lower alveolus which had progressed to the present size and later ulceroproliferative growth developed which was associated with pain. Patient had a history of tobacco chewing since 40 years. Biopsy from left lower alveolus was reported as well differentiated Squamous Cell Carcinoma. Radioimaging CT Scan of neck was done which revealed soft tissue lesion in gingivobuccal area

on the left side causing erosion and destruction of body of mandible with extensions suggestive of neoplastic etiology and multiple subcentimetric lymph node were likely reactive.

Complete excision of the lesion with left side neck dissection and right side Level I lymph node dissection was performed and sent to the Department of Surgical Pathology for histopathological examination.

Gross Examination

Grossly a grey white ulceroproliferative growth measuring 6 x 3.5 x 3.2 cm is seen involving left buccal mucosa, left sulcus, and left gingiva. Cut section of the growth was grey white and firm (Fig-1).

Microscopic Features

The tumor showed numerous exophytic papillary projection of hyperkeratinized atypical squamous epithelium with fibrovascular cores. Individual cells show basilar hyperplasia, increased nuclear / cytoplasmic ratio, nuclear hyperchromatism, nuclear pleomorphism and abnormal mitosis. Epithelium showed apoptotic bodies with minimal crowding. Stromal invasion was also seen. So the diagnosis of Papillary Squamous Cell Carcinoma was made (Fig-2).



Fig-1: Grey white ulcerexophytic growth

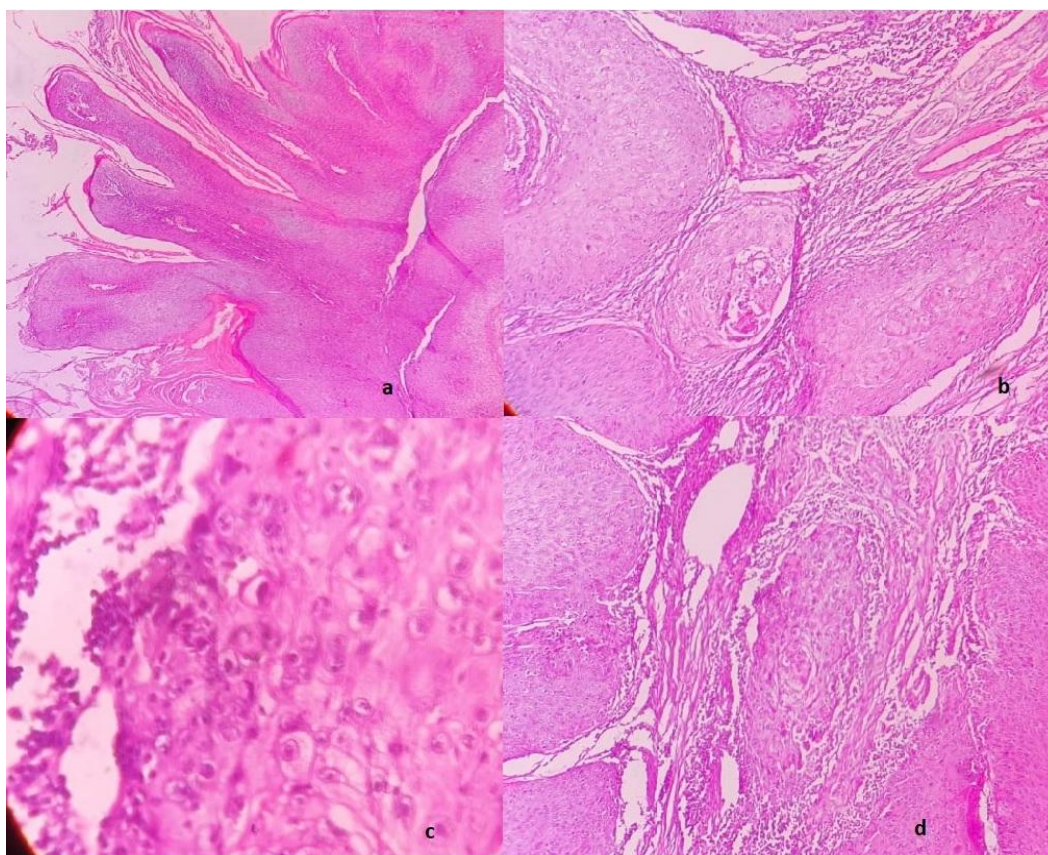


Fig-2: a: Exophytic papillary projections of the hyperkeratinised stratified squamous epithelium (H&E, 40X); b,c: Epithelial cell dysplasia with individual cell hyperkeratinised (H&E,100X, 400X); d: Invasion of tumor cells (H&E,100X)

DISCUSSION

Papillary Squamous Cell Carcinoma is clinically rare variant of Squamous Cell Carcinoma of the upper aerodigestive tract mucosa. Very few cases have been reported [1]. Predominantly in the 6th and 7th decade of men mostly involving Larynx, oropharynx and nasopharynx. Papillary Squamous Cell Carcinoma most often presents as a soft, friable, polypoidal, exophytic and papillary tumor.

Smoking and alcoholism is the most significant etiologies for the Papillary Squamous Cell Carcinoma [3]. There are many similarities between Papillary Squamous Cell Carcinoma and Squamous Cell Papillomas due to their clinical and histopathological findings, therefore it was postulated that HPV might be an important etiological factor for Papillary Squamous Cell Carcinoma [3, 4]. Latest techniques are used to demonstrate the frequent

association of high risk HPV-16 in the sinonasal tract, oropharynx and larynx. However it has not been proved in any studies about the correlation of HPV in oral Papillary Squamous Cell Carcinoma.[5]

Macroscopically, Verrucous carcinoma shows exophytic, papillary and warty appearance. Lesion might appear soft to firm in consistency, they may arise from broad ligament or a narrow pedicle/ stalk [6]. Microscopically at low power they appear similar to sinonasal papillomas [2]. These lesions typically demonstrate a papillary pattern consisting of multiple, thin, delicate filiform, finger like papillary projections with fibrovascular cores [1]. The fibrovascular cores are covered by neoplastic, immature basaloid cells or more pleomorphic cells and shows minimal keratinosis. The papillary projections are covered with a stratified squamous epithelium that shows features of malignancy like increased nuclear to cytoplasmic ratios, nuclear irregularities, and numerous mitotic figures located throughout the entire thickness of the epithelium. Sometimes it is also associated with the chronic inflammatory response [6]. Koilocytic atypia is frequently seen, which is seen as hyperchromatic, crenated nuclei surrounded by clear halo of cytoplasm and an accentuated cell border. Single or multiple nests of tumor cells with dense lymphocytic inflammation at the tumor stroma interface is usually seen in the stromal invasion [7]. Specimen resection should be done carefully for invasion because it behaves similarly to conventional type Squamous cell carcinoma

There are 2 morphological types of Papillary Squamous Cell Carcinoma which are being identified:

- A Keratinising (K) type, in which the dysplastic epithelium showed maturation trend with minimal surface parakeratin.
- A non-keratinising (NK) type, in which papillae are covered with immature basaloid cells [7].

The present study showed keratinising type of Papillary Squamous Cell Carcinoma. Differential diagnosis of Papillary Squamous Cell Carcinoma with their clinical and histopathological findings are very similar to solitary papillomas and verrucous carcinoma. The most common differential diagnosis include sinonasal or Schneiderian papillomas.

It is currently recommended that non-invasive Papillary Squamous Cell Carcinoma be treated by complete surgical excision. And the treatment of

invasive Papillary Squamous Cell Carcinoma depends on their low to moderate malignancy staging. Supplement radiotherapy and chemotherapy are the other treatment methods for Papillary Squamous Cell Carcinoma. It is presumed in Papillary Squamous Cell Carcinoma distant metastasis is rare and their prognosis is good.

CONCLUSION

Papillary Squamous Cell Carcinoma is a very rare variant of Squamous Cell Carcinoma of oral cavity. It is must for the pathologist to differentiate Papillary Squamous Cell Carcinoma from conventional Squamous Cell Carcinoma and other papillomas and verrucous carcinoma, as the prognosis is good in Papillary Squamous Cell Carcinoma than other diseases. Eventually, therapeutic modalities may be modified on the basis of the overall excellent prognosis of patient with Papillary Squamous Cell Carcinoma.

Conflict of Interest Statement: The authors have no conflict of interest.

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