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Verrucous Carcinoma – A Case Report

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Abstract:- Verrucous carcinoma (VC) which was first described in 1948 by Ackerman. The carcinoma may manifest in several ways and it can vary from individual to individual. Given the wealth information about verrucous carcinoma, we attempted to present this case report in different ways. In the first half of this paper, we present a case report of verrucous carcinoma of Department of Oral Medicine & Radiology and in second half, we present literature of verrucous carcinoma.

Keywords:- *Verrucous Carcinoma, Ackerman's Tumor, Carcinoma of Cuniculatum.*

I. INTRODUCTION

Oral verrucous carcinoma which was first described in 1948 by Ackerman, but first evident based documented case of verrucous carcinoma described in 1941 by Fridell and Rosenthal. They reported a case of squamous cell carcinoma (SCC) well differentiated type as a "papillary verrucous carcinoma." In literature various synonyms used to depict this carcinoma, as carcinoma cuniculatum, Ackerman's tumor, Buschke Lowentein tumor, florid oral papillomatosis, and epithelioma cuniculatum. [1, 2, 3, 4, 5]

II. CASE REPORT

A male patient 75 years reported to the Department of Oral Medicine and Radiology, with the chief complaint of pain in lower front teeth region since 6 months. Patient was apparently asymptomatic 6 months back, when he experienced pain in right lower front region of jaw. Patient gives history of removal of his lower tooth of right side; thereafter he noticed swelling (growth). Initially swelling was smaller in size which eventually disappear, then reappearance of same increasing to the present. He complains of mild pain. Pain was dull aching and continuous in nature with intense since past 2 to 3 days.No medical and family history contributed. He has history of removal of 46 that comes in dental contribution. Patient has habit of chewing tobacco and gutka since childhood 2 to 3 times in a day. He keeps tobacco quid in right labial vestibule of mouth for 20 to 30 minutes.

General extra-oral examination revealed, no sign of pallor in the conjunctiva, cyanosis and icterus in the sclera was noted, the nose and ears showed no abnormality. Skin was normal in appearance. Nails examination revealed no sign of koilonychias, clubbing, cyanosis or pallor.

On inspectory findings, extra-oral examination revealed facial asymmetry(fig 1), a diffuse unilateral swelling seen on mandibular anterior region of face which is more on right side crossing midline, extending anterio-posteriorly from left corner of mouth to right corner of mouth and superior-inferiorly from inferior labial to lower border of mandible(fig 2), Overlying skin appears normal.

On palpation, there was evidence of Single stony hard, oval shape swelling palpated at the lower right border of the mandible extending from inferior labial part of right side to the lower border of the mandible. Swelling was hard with fixation to the underlying structures and tender on palpation. Temperature of overlying skin was raised.

Lymph nodes -Right submandibular lymph nodes and sub mental lymph nodes were palpable and fixed to underlying structures and were tender on palpation.

Hard tissue examination showed,
Missing teeth with 23, 27, 36, and 46.
Root piece with 17,18,34,48
Mobility: Grade III mobility with 31, 32, 33, 41, 42 &43
Grade II mobility with 44
Attrition: Generalized attrition present
Stains &calculus: Stains ++ & Calculus ++

Soft tissue examination showed, an exophtyic ulcero-proliferative growth observed on mandibular labial mucosa extending from 34to 46 regions involving lingual vestibule bilaterally. **Extent**–Lesion is extending mesio-disatally from mesial surface of 34 to distal surface of 46Size-Approximately 75x75mm. **Surface**- The growth shows an irregular pebbled surface with white areas of Cauliflower like appearance (fig 3, 4). Movement of tongue restricted due to exophtyic growth in mandibular anterior teeth region. Pigmentation seen on both right and left buccal mucosa and

palatal mucosa. **Borders** – Borders are everted with ill-defined irregular margins. **Floor**- Floor is covered with yellowish necrotic slough. **Base**- Base of the lesion is fixed to underlying structure and indurated. (Fig 5) Edges of lesion appear to be raised and everted with irregular margins with severe halitosis. On the basis of clinical findings, working provisional diagnosis of this case, verrucous carcinoma of the lower labial vestibule and right buccal mucosa extending into floor of mouth involving the alveolus and lingual vestibule. According to TNM classification it was a case of- T3N2M0 (Stage 3).

For confirmed radiographic and final diagnosis, patient advised some investigations that are gold standard biopsy and OPG. The OPG revealed Destruction of mandibular canal and complete destruction of corticated margins (zone 3). Zone 5 revealed poorly defined radiolucency with ragged borders/ill-defined permeative borders. Teeth 43, 44, 47 in the area of involvement a devoid of bone support and appear as floating or hanging teeth. Rest all zones of OPG appears to be normal. On the basis of radiographic features, working radiographic diagnosis was verrucous carcinoma of the mandibular labial vestibule and right buccal mucosa extending into floor of mouth involving the alveolus. (Fig 6)

On the working diagnosis the excised lesion sent for histopathological diagnosis, Type of histopathology specimen: Incisional biopsy mandibular right anterior region. Section studies from the biopsy shown a lesional tissue lined by stratified squamous epithelium showing hyperkeratosis and parakeratosis. Tumor is arising from overlying epithelium and going downwards into dermis with bullous and pushing margins. Individual tumor cells are round to polygonal having mid hyperchromatic nuclei with prominent nucleoli. Many abnormal mitotic figures are seen. Final histopathological diagnosis of this case was verrucous lesion. Clinical and histopathological findings favor diagnosis of VERRUCOUS CARCINOMA.

Final Diagnosis: **verrucous carcinoma** of the lower labial vestibule and right buccal mucosa extending into floor of mouth involving the alveolus and lingual vestibule.

III. DISCUSSION

Clinically verrucous carcinoma presents as a slow growing lesion where clinical features shows slow growing exophtyic growth pattern, mobility of tooth, tooth displacement and sometimes history of extraction of tooth. Carcinoma may large painful in nature with bony involvement shows facial asymmetry. Exophtyic growth pattern shows cauliflower like appearance is typical feature of verrucous carcinoma. Verrucous carcinoma usually found in fourth to sixth decade of life with male predilection ratio.[1, 2.] In literature, distant metastases have not been illustrated but rare case of regional lymph node metastases was reported. Etiological factor of VC are tobacco and alcohol, Betel nut, Human papilloma virus –HPV 16 & HPV 18, Chemicals – which act as carcinogens, poor dental oral hygiene etc. The most frequent site of verrucous carcinoma of oral cavity involving buccal mucosa, mandibular alveolar crest, gingivae and tongue.[1, 6]

Sign and symptoms of carcinoma, Discomfort is the most common symptom. Dysphagia, limited movement, oral bleeding, neck masses, and weight loss may occur. Loss of sensory function may indicate neural involvement. Tissue changes include red, white and mixed red and white lesions a change in surface texture producing a smooth, granular, rough, or crusted lesion or presence of mass or ulceration. The lesion may be flat or everted and is indurated. Lymphatic spread of oral carcinoma most commonly involves submandibular and digastrics nodes. They become enlarged and firm in texture and with progression may become fixed and not mobile. The nodes are not tender unless they are associated with secondary infections.

Diagnostic techniques of carcinoma:

- Vital tissue staining –Toluidine blue
- Visualization adjuncts- Chemiluuminiscent light detectors like ViziLite
- Cytopathology –OralCDx brush
- Biopsy- This is the gold standard diagnostic test for mucosal lesions that are suggestive of premalignancy or malignancy

Radiologic features: Squamous cell carcinoma is not a bone tumor but tumor in bone. A malignant tumor shows radiographically irregular and ragged borders; such an appearance is described as bays and promontories. These lesions do not have corticated borders. Extensive destruction of bone weakens jaw and this might give rise to pathological fracture. It gives rise distinct brake in the continuity of the land mark. Malignant tumors give rise to very little resoption of teeth which is irregular and termed as spiked root resoption, Rapid destruction of alveolar bone around the roots gives it a floating or hanging tooth appearance.[7]

Proliferative Verrucous leukoplakia(does not associated with tobacco, so idiopathic in aetiology may associated with HPV, EBV, Carcinoma of alveolar ridge that comes as clinical differential diagnosis of above presented case.

Histopathological features of verrucous carcinoma revealed tissue lined by stratified squamous epithelium showing hyperkeratosis and parakeratosis. Tumor is arising from overlying epithelium and going downwards into dermis with bullous and pushing margins.Individual tumor cells are round to polygonal having midly hyperchromatic nuclei with prominent nucleoli. Many abnormal mitotic figures are seen.

Treatment modality of verrucous carcinoma is surgical excision, using radiotherapy. But in literature using

radiotherapy is controversy as there may be radiation induced anaplastic transformation of lesions as illustrated by some studies. [7]

IV. FIGURES OF THIS CASE

Figure 1: Facial profile revealed asymmetry

Figure 3: Intraoral examination shows extent & surface of lesion

Figure 5: Intraoral examination shows reduced mouth opening & displacement of teeth.

Figure 2: Extraoral examination revealed a diffuse unilateral swelling

Figure 4: Growth shows cauliflower like appearance

Figure 6: OPG revealed ill defined permeative borders & Teeth 43,44,47 in the area of involvement an devoid of bone support that appears as floating or hanging teeth.

V. CONCLUSION

The present case of malignancy has been reported as verrucous carcinoma. The characteristic features of verrucous carcinoma is a slow growing, exophtyic growth showing cauliflower like appearance, rarity of single lymph node metastases and lack of distant metastases. Surgical excision or resection is one of the treatment modality with adequate margins. When we talk about prognosis factor of lesions then for this point we can conclude that verrucous carcinoma is better than that of other life-threating malignancies. Early diagnosis and appropriate treatment with cessation of habit is important factor of any malignant disorders.

REFERENCES

[1]. Shergill AK, Solomon MC, Carnelio S, Kamath AT, Aramanadka C, Shergill GS. Verrucus carcinoma of the oral cavity: current concepts. Int J Sci study. 2015; 3: 114-8.
[2]. Kallarakkal TG, Ramanthan A, Zain RB, Verrucous papillary lesions; Dilemmas in diagnosis and terminology. Int J Dent. 2013; 2013:298249.
[3]. Kawakami M, Yoshimura K, Hayashi I, Ito K, Hyo S. Verrucous carcinoma of the tongue: Report of two cases. Bull Osaka Med Coll. 2004; 50:19-22.
[4]. Santoro A, Pannone G, Contaldo M, Sanguedolce F, Esposit V, Serpico R, et al. A troubling diagnosis of verrucous squamous cell carcinoma: A review of the literature with a case report. J Skin Cancer. 2011; 2011; 370605.
[5]. Agnihotri A, Agnihotri D. Verrucous carcinoma: A study of 10 cases. Indian J Oral Sci. 2012;3:79-89
[6]. Asha ML, Vini K, Chatterjee I, Patil P. Verrucous carcinoma of buccal mucosa: A case report. Int J Adv Health Sci. 2014; 1:19-23.
[7]. Dhanya S. Rao, Anupama N, Kalappanavar, I.M.Ali, et al, Verrucous carcinoma- an enigma;ContempClin Dent. 2016 Jul-Sep; 7(3):391-393.