AGGRESSIVE VARIANT OF ORAL VERRUCOUS CARCINOMA
WITH EXTENSIVE MANDIBULAR INVOLVEMENT: A RARE CASE REPORT

Dr. R.S. Sathawane¹, Dr. Nikita Agrawal², Dr. Abhijeet Deoghare³, Dr. Deepti Patel²

1. Professor and Head
2. Post graduation student
3. Reader
   Department of Oral Medicine and Radiology,
   Chhattisgarh Dental College and Research Institute, Sundra, Rajnandgaon,
   Chhattisgarh, India
   PIN- 491441

Address for correspondence-
Dr. Nikita Agrawal, A/66, Amrapali society, Dhamtari road, Raipur, (C.G.) PIN- 492001
Phone no. +91 7748806666
Email- writetonikitaagrawal@gmail.com

ABSTRACT

Spit tobacco associated malignancy includes two varients: Oral verrucous carcinoma (OVC) and oral squamous cell carcinoma (OSCC). OVC was first reported by Ackermann in 1948.¹ It is a rare, distinct low grade variety of well differentiated OSCC.² OVC is painless, slow growing, looking like cauliflower with thick white warty surface, locally invasive and rarely metastasize.¹ Rarely, the adjacent tissues including bone & cartilage may be involved and destroyed. Here we report a case of aggressive variant of OVC with extensive mandibular destruction.

Key Words

Spit tobacco, Aggressive, Oral Verrucous carcinoma, Oral squamous cell carcinoma, Extensive bone destruction
INTRODUCTION

Oral verrucous carcinoma (OVC), a rare, distinct low grade variety of well differentiated OSCC, was first reported by Ackermann in 1948. Various terminologies used in literature for this entity include Ackerman’s tumor, Buschke-Loewenstein tumor, florid oral papillomatosis, epithelioma cuniculatum, and carcinoma cuniculatum. OVC is a rare, distinct low grade variety of well differentiated OSCC. It is painless, slow growing, looking like cauliflower with thick white warty surface, locally invasive and rarely metastasize. The most common sites of oral mucosal involvement are the buccal mucosa, followed by the mandibular alveolar crest, gingiva, and tongue. In 1980, Shear and Pindborg described a condition called as verrucous hyperplasia, and reported that clinically and pathologically, there is much resemblance between the two. Verrucous hyperplasia is said to be an early form of VC and known to have the same biological potential.

Surgery being the first choice of treatment, and radiotherapy being controversial; surgery combined with radiotherapy is the most preferable treatment. Verrucous carcinoma, a less common tumour, represents 4.5-9% of oral squamous-cell carcinomas. Males (68.42%) outnumbered females (31.58%) (2:1). Buccal mucosa (57.89%) was found to be most commonly involved followed by tongue, gingiva, alveolar mucosa, soft palate in decreasing order. Recurrence rate is high in cases in which either irradiation or surgery alone is performed.

CASE REPORT

A 45 years old male reported with a complaint of growth inside mouth since last 3 months. Patient also gave history of swelling in his lower left side of face since last 2 months which gradually increased to present size from the first noticed coin sized swelling. History revealed that the growth which was present at mandibular left posterior region, was initially gram nut sized and then gradually reached to the present size (3×2cm) in 3 months. There was history of paresthesia of tongue on the affected side, and no history of discharge from the growth.

There was no relevant medical and dental history. Patient had the habit of...
chewing tobacco & gutkha since last 25 years and occasional consumption of alcohol. He used to place gutkha and tobacco in lower left buccal vestibule for 30 mins, 3-4 times/day.

Extraorally a swelling of size approx 4×3 cm was evident on left lower 1/3rd of face involving the left submandibular region, which was firm and nontender (fig. 1). Left submandibular lymphnodes were palpable, which were mobile, nontender and firm in consistency.

Intraorally, a soft tissue overgrowth of size approx 3 × 2 cm was evident distal to 38, in the retromolar area, having proliferative, cauliflower like surface with mixed red and white areas (fig. 2). The growth was slightly tender, non-indurated, soft to firm on palpation. Unilateral paresthesia of tongue with no functional loss was noted on left side.

On the basis of clinical examination, the provisional diagnosis of verrucous carcinoma and papilloma was considered in the differential diagnosis. On investigating, OPG showed large irregular shaped radiolucency with ill defined margins and moth eaten appearance extending from the mesial root of 38 till above the middle portion of anterior ramus, covering an area of approx 4× 1.5 cm on left side. The radiolucency even extended beyond the periapical area of 38 encroaching the superior and the superio-anterior border of the inferior alveolar canal (fig. 3). After complete haemogram, incisional biopsy of the lesion was performed, which revealed hyperkeratotic stratified squamous epithelium thrown into papillary projections with underlying supporting connective tissue cores showing abundant vascularity. At places the epithelium showed drop shaped rete ridges growing towards connective tissue. The suprabasilar epithelial cells were hyperchromatic at some places and some epithelial cells were koilocytic. The underlying connective tissue stroma was fibrocellular with numerous endothelium lined blood vessels filled with RBCs. Moderate inflammatory cells infiltrate chiefly comprising of lymphocytes were seen, all suggestive of verrucous carcinoma (fig. 4).

Looking at the aggressive nature of the OVC, again an incisional biopsy from
the other site of the lesion was taken and the diagnosis was reconfirmed as OVC. So, the final diagnosis of aggressive oral verrucous carcinoma with extensive bone involvement was made. The patient was referred to the higher centre for the combination (radiotherapy and surgery) therapy.

**DISCUSSION**

VC has been described in three main sites: the oropharynx, genitalia and feet. Million & Cassiss regarded it as a 'grade one-half' SCC. In the oral cavity, VC constitutes 2 to 4.5% of all forms of SCC, seen mainly in males above 50 years of age, associated with tobacco use. In oral cavity, it occurs most commonly in the buccal mucosa (61.4%) > lower alveolus (11.9%). This is also associated with high incidence (37.7%) of second primary tumor synchronus or metachronus, mainly in oral mucosa. Its etiopathogenesis is described as biologic (HPV), chemical (smoking) and physical (constant trauma). Its prognosis is excellent because of its slow growth and gravity with which it metastasize to regional lymph nodes. Rarely, the adjacent tissues including bone and cartilage may be invaded and destroyed. Microscopically, VC are usually broad based and locally invasive with papillary fronds consisting of highly differentiated squamous cell lacking usual criteria of overt malignancy. Rarely mitosis is seen. Surface is usually covered by keratin layers. The invasive margin is invariably a slow ‘pushing’ one along with inflammatory reaction in the stroma.

Alkan et al reported only 12 cases in 10 years duration. Furthermore, Idris et al, in their epidemiological study, found no such tumor reflecting its rarity. Rajendran et al., in their study of 426 cases of OVC, found the incidence of bone invasion to be 1.2%. Oliveira et al did not find bone invasion in their series. Instead extensive bony invasion by the tumor has been seen in our case. Verrucous hyperplasia, verrucous keratosis, and verrucous carcinoma may not be distinguished clinically or may coexist. It should be kept in mind that verrucous hyperplasia may also develop from leukoplakic lesions, and it may transform into verrucous carcinoma or squamous-cell carcinoma, acting as a potential precancerous lesion.
Figures

Fig. 1: showing swelling and facial asymmetry of left side of the face

Fig. 2: showing cauliflower like growth in left retromolar area

Fig. 3: showing extensive bony destruction involving apical region of 38, anterior ramus inferior alveolar canal.

Fig. 4: showing hyperkeratotic and epithelium with inflammatory infiltrate.
REFERENCES