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Verrucous Hyperplasia with Oral Submucous Fibrosis: A Case Report

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Abstract

Verrucous hyperplasia (VH) is a rare exophytic lesion of oral mucosa that can transform into verrucous carcinoma (VC), its malignant but clinically similar counterpart, while Oral Submucous fibrosis (OSMF) is characterized by

abnormal collagen deposition. It is a potentially malignant condition that transforms into a malignant tumor. Symptoms include submucous fibrosis, ulceration, xerostomia, burning sensation, and restricted mouth opening.

Keywords: Verrucous Hyperplasia, Oral Submucous Fibrosis, Buccal Mucosa, Lower Lip, Buccal Fat Pad

Introduction

Verrucous hyperplasia is a premalignant exophytic lesion of oral mucosa with a predominantly verrucous or papillary surface. This lesion may transform into verrucous carcinoma (VC), a well-known warty variant of squamous cell carcinoma (SCC) [1, 2]. Oral submucous fibrosis (OSMF) is a chronic disease that causes scarring, tissue fibrosis, and precancerous lesions. Pathologic features include chronic inflammation, excessive collagen deposition in the connective tissue beneath the oral mucosal epithelium, local inflammation in the lamina propria or deep connective tissue, and degenerative changes in the muscles [3]. OSMF patients experience severe burning sensation in the mouth after eating spicy foods. Other symptoms of OSMF include dry mouth, pain, taste disturbance, limited tongue mobility, trismus, dysphagia, and altered tone [4]. The present case report describes a case of verrucous hyperplasia and oral submucous fibrosis in a 60-year-old male patient.

Case report

A 60-year-old male patient reported to the department with complain of growth in the inner left cheek and lower lip region in the last 1 year. Patient also gave a history of associated pain which was sudden in onset, intermittent, dull aching in nature and non-radiating type. He was experiencing difficulty in swallowing and speech. There was a history of tobacco chewing 3-4 times a day in the past 12 years, but the deleterious habit was discontinued 3 months back. On extraoral examination, proliferative growth measuring 2.5*2 cm over the lower lip extending from the left 1/3rd of the lip to the left corner of the mouth with adequate mouth opening of 45 mm was noted. On palpation growth was tender with a rough texture and firm consistency with induration. On intraoral examination, proliferative growth resembling cauliflower like appearance in relation to the left buccal mucosa distal to 36 and measuring 4*2 cm in the greatest dimension. Proliferative growth resembling cauliflower like appearance in relation to lower lip extending into labial vestibule measuring 2.5*2 cm in greatest dimension along with erythema in relation to the right buccal mucosa. (Fig 1, 2) Bilateral fibrous bands palpable in the circumoral region and buccal mucosa without any tongue movement restriction. As a result of these features, a provisional diagnosis of verrucous carcinoma associated with oral submucous fibrosis was made. CECT investigations showed nodular soft tissue swelling in upper right gingivo buccal mucosa and ulcer. (Fig 3) An incisional biopsy was done and specimen was sent for histopathology. Microscopic findings revealed predominant hyperparakeratinized epithelium with foci of area showing atrophic epithelium. Epithelium is hyperplastic in nature, seen proliferating into the underlying stroma. Basilar cell hyperplasia along with acanthosis was observed. Connective tissue showed inflammatory cell infiltration along with normal minor salivary

gland tissue. Thereby, confirming epithelial hyperplasia with mild dysplastic features. Final diagnosis implicated verrucous hyperplasia of left buccal mucosa and lower lip with oral submucous fibrosis (S3 M2). The patient was treated surgically using full thickness skin graft by reconstruction of buccal fat pad (Fig 4). After 4 months of operative evaluation, there was no lesion at the site of origin.



Fig 1: Intraoral examination of buccal mucosal appearance on the left side



Fig 2: Blanching with proliferative growth in the right buccal mucosa

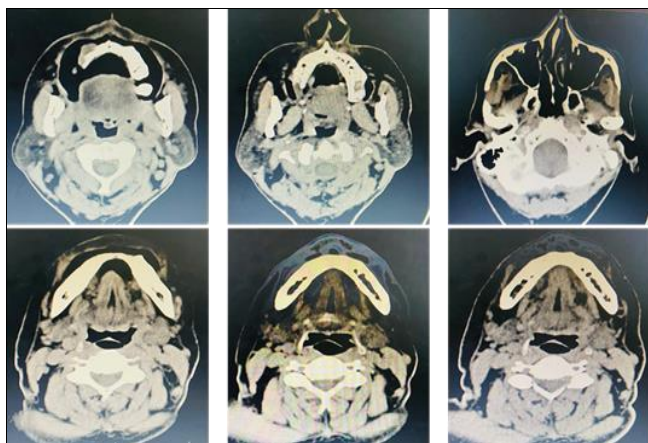


Fig 3: CECT revealed nodular soft tissue swelling in upper right gingivo buccal mucosa and ulcer



Fig 4: Surgical and post operative intraoral appearance

Discussion

Clinically, verrucous hyperplasia presents as a warty or papillary, fungal, exophytic mucosal mass that may sometimes ulcerate and is predominantly pink in color with a partially whitish surface. The average age at the initial presentation is between 30–60 years. Previous studies have shown that the buccal mucosa is the most common site for verrucous hyperplasia. This could possibly be related to consumption of quid (i.e., clumps of chewing tobacco) which is commonly placed in this region of the mouth. In contrast, the placement of tobacco-betel lime quid (i.e., a mixture of slaked lime, chewing tobacco and pieces of betel leaf) in the buccal vestibule is the predominant habit associated with the growth of verrucous hyperplasia [1]. In our case, patient reported a habit of tobacco chewing 3-4 times since 12 years.

As for oral submucous fibrosis, it is considered a collagen metabolic disorder with an overall increased collagen production and decreased collagen degradation, resulting in increased collagen deposition in oral tissues, as well as fibrosis due to alkaloid exposure resulting from exposure to betel-quid habit [4]. Oral submucous fibrosis is seen primarily in Asians who chew betel nut quid or its variants such as gutka (mitha pan), kiwam, zarda and pan masala. If consumed over longer period of time and higher frequency, it can lead to OSMF [5, 6, 7]. In our case report, the patient had bilateral fibrous bands palpable in the circumoral region and buccal mucosa.

The treatment plan included wide local excision of the fibrous bands. Surgical intervention was done to reconstruct with a buccal fat pad or split/ full thickness skin graft. Followed by adjunctive radiotherapy and prosthetic rehabilitation. Various surgical procedures have been described in the literature with varying success rates [8]. In our case, the patient was treated with wide local excision of the fibrous bands and reconstruction of the buccal fat pad using full thickness skin graft.

Conclusion

Cases of verrucous hyperplasia may also be confused with verrucous leukoplakia. Biopsies of verrucous lesions should include the adjacent normal epithelium to ensure correct diagnosis. Because verrucous hyperplasia has the potential for malignant transformation, patients should be treated similarly to patients with verrucous carcinoma. OSMF is a potentially malignant condition that requires close surveillance and follow-up.

Table 1: Abbreviations

VH	Verrucous hyperplasia
OSMF	Oral submucous fibrosis
VC	Verrucous carcinoma

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