Oral Verrucous Hyperplasia: A Case Report

Anuradha Navaneetham · M. C. Dayanand Saraswathi ·
B. S. Santosh

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Abstract Oral verrucous hyperplasia is a whitish or pinkish elevated pre malignant lesion which occurs rarely. Its is also considered to be an early form of verrucous carcinoma. We have reported a case of verrucous hyperplasia which was diagnosed and treated with buccal fat pad as graft.

Keywords Oral verrucous hyperplasia · Buccal fat pad · Graft

Introduction

Oral verrucous hyperplasia is a whitish or pink elevated oral mucosal plaque or mass with either a verrucous or papillary surface which was first described by Shear and Pindborg [1]. Verrucous carcinoma and verrucous hyperplasia closely resemble each other clinically and pathologically [1]. Verrucous hyperplasia has been considered to be an early form of verrucous carcinoma, and is believed to have the same biologic potential. The diagnosis of both lesions must be established histologically and it is for the clinician to sample the lesion adequately when taking a biopsy. Various treatment modalities include surgery, chemotherapy, radiation or combinations of these and photodynamic therapy which has been recently reported. The use of the buccal fat pad has increased in popularity because of its reliability, ease of harvest, and low complication rate. It has been used as a pedicled or free graft in reconstructing small to medium sized defects intraorally.

Case Report

A 30-year-old male patient reported to the unit with complaints of a rough white patch on right buccal mucosa and burning sensation since 6 months. He gave a history of using tobacco in different chewable forms since 4 years with no significant medical or dental history. Initial intraoral examination showed two solitary warty white patches with irregular borders one on right buccal mucosa and another on retromolar pad area with an intermediate area of inflammation in between. (Fig. 1) The lesion extending from premolar area to retromolar pad area measured about 5 cm × 2 cm. Patient had a partial limitation of mouth opening. Clinical diagnosis of verrucous form of leukoplakia was made and an incisional biopsy of both lesions was done for confirmation. Histopathology showed marked hyperkeratosis and hyperplasia of epithelium with papillomatosis, sub epithelial mild lymphocytic infiltrate with no evidence of dysplasia or malignancy and was diagnosed as verrucous hyperplasia. At the time of surgery the intermediate area showed verrucous changes (Fig. 2). Wide excision of the lesion and reconstruction with buccal fat pad was done (Fig. 3). Excisional biopsy showed normal epithelial cell cytomorphic features with increased layers of stratum spinosum and areas with parakeratin plugging (Fig. 6). Adequate epithelisation of the fat was observed in the first month (Fig. 4) and complete healing after 6 weeks. No signs of recurrence were evident at 12 months post operatively. Patient is being followed up on a frequent basis. (Fig. 5).

Discussion

Oral verrucous hyperplasia (OVH) and oral verruciform leukoplakia are two potentially malignant conditions that

A. Navaneetham (✉) · M. C. Dayanand Saraswathi ·
B. S. Santosh
Institute of Dental Sciences, Pilibhit Bypass Road,
Bareilly, Uttar Pradesh (W), India
e-mail: anufaxmax@gmail.com

Fig. 1 Verrucous hyperplasia present on the right buccal mucosa and retromolar pad, with flecks of white patches in between

Fig. 4 Epithelisation of buccal fat pad at the surgical site, 1 month post operative

Fig. 2 Lesion at the time of surgery, verrucous changes seen at the intermediate zone connecting the two areas as seen pre-operatively

Fig. 5 Twelve months post operative shows no signs of recurrence

Fig. 3 Reconstruction of the defect after surgical excision with buccal fat pad (BFP)

may transform into either an oral verrucous carcinoma (OVC) or oral squamous cell carcinoma. Wang et al. [3] found high association of areca quid chewing and or cigarette smoking habits with OVH lesions. These lesions

Fig. 6 Histopathology of the excised specimen

occur most often in patients in the fifth to seventh decade commonly on the buccal mucosa. They classified OVH lesions into plaque and mass-typed with mass-typed OVH

lesions having a higher malignant transformation rate and requiring an immediate treatment, such as surgical excision or photodynamic therapy, after the histopathology diagnosis.

Batsakis et al. [1] described the histological similarities between OVH and OVC which makes it difficult to distinguish. Some authors regard OVH to be a morphological variant of OVC. Others consider it to be an irreversible precursor of OVC and recommend that both lesions be managed in the same manner.

The diagnosis of verrucous hyperplasia and verrucous carcinoma is primarily based on histological criteria, being distinguished from each other by an exophytic and endophytic growth pattern, respectively [1, 2].

The importance of the diagnosis of verrucous hyperplasia or verrucous leukoplakia lies in the awareness of both the clinician and pathologist verrucous lesions irrespective of the colour the presence of dysplasia may in time progress into verrucous carcinoma or squamous cell carcinoma. Patients with a suspected diagnosis of verrucous hyperplasia should be treated and closely followed.

The buccal fat pad (BFP) has been in use since 1977 (Egyadi) as a pedicled graft [4] and in 1983 (Neder) described its use as a free graft [5]. We report its use for the first time in reconstruction of a buccal defect after excision of verrucous hyperplasia lesion. BFP has a central body and four processes namely the buccal, pterygoid, superficial and deep temporal. It has a mean volume of 10 ml and weight of 9.3 gm. The body and buccal extension constitute half the volume and are easily accessible through an intraoral incision in the upper buccal sulcus at the tuberosity area. The blood supply to BFP is through three sources the maxillary, superficial temporal and facial arteries. Its function in adults is to enhance intermuscular motion. Its use is limited to reconstruct defects measuring approximately 4 cm × 5 cm. The graft epithelializes in few weeks [6] thus, avoiding the need for a skin graft cover [7–9].

BFP harvest is contraindicated in patients with malar hypoplasia, and prior to local radiotherapy [10]. Complications may include haematoma, partial necrosis, infection and excessive scarring or fibrosis leading to decreased mouth opening for which post operative physiotherapy is

advised [9]. Giuseppe et al. [11] reported use of pedicled BFP for reconstruction following tumor excision including cases of OVC.

OVH is a persistent and progressive lesion requiring early intervention to increase the chances of favorable outcome. Good vascularization, ease of access, minimal donor site morbidity and complications have made the buccal fat pad a reliable soft tissue graft for intraoral reconstruction of small defects.

Ethical Committee Clearance

The study was approved by the appropriate ethical committee and informed consent was obtained from the patient prior to inclusion in the study.

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