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Focal Epithelial Hyperplasia: A Rare Case Report

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Focal epithelial hyperplasia is a rare entity of oral mucosa induced by Human Papilloma virus type 13 and 32. It was described by Estrada in 1956 within a group of Colombian Caramanda Indians. In Latin America it is called Multifocal Papilloma virus induced epithelial hyperplasia. It is common in younger age groups. Generally it is very rare in Asia. Here we report a case of 32 year old male who came with a complaint of burning sensation for past 6 months. The lesion was diagnosed as Focal epithelial hyperplasia according to clinical and Histopathological features. Dental clinicians should be aware of these lesions with a careful clinical and Histopathological observation under definitive diagnosis.

KEYWORDS: Heck's disease, Human Papilloma virus, Non-Oncogenic types

INTRODUCTION

Heck's disease is a rare benign lesion of oral mucosa induced by Human Papilloma virus type 13 and 32.¹ It was first observed by Archard and Heck in 1965.¹ It commonly occurs in children characterized by small papules or nodules seen on lips and buccal mucosa and rarely seen on palate and gingiva.²⁻⁸ Histologically, it is characterized by nondyskeratotic nodular acanthosis, which forms the basis of papules and subepithelial lymphocytic infiltration. This paper reports a case of Focal epithelial hyperplasia which was diagnosed according to clinical and Histopathological features, as it might be associated with high risk oncogenic types.

CASE REPORT

A 32-year-old male presented with a complaint of burning sensation in the mouth for past 6 months. His past medical, dental and habitual histories were non-contributory. All review of systems was normal. Intra oral examination revealed greyish white raised nodular area in relation to the left buccal mucosa along the occlusal plane roughly measuring 3 cm x 2.0 cm in dimension. The surface appeared hyperkeratotic with clefts evident that gave it a nodular appearance. On palpation of left buccal mucosa the nodular area was non-tender and soft to firm in consistency (Figure 1). Greyish white multiple discrete nodules were also evident on the right buccal mucosa along the occlusal plane measuring 0.5 cm in dimension (Figure 2).

Greyish black diffuse pigmentation was evident on the palate extending anteriorly from the rugae region and posteriorly upto the faucial pillars. The pigmentation was interspersed with nodules that gave a pebbly appearance (Figure 3). A provisional diagnosis of smokeless tobacco lesion was included. A differential diagnosis of squamous cell papilloma, verruca vulgaris, florid oral papillomatosis and inflammatory papillary hyperplasia was made. Routine blood investigation revealed no abnormality. HIV testing was done and appeared as negative. Biopsy procedures included Incisional biopsy. Incisional biopsy was taken in left buccal mucosa. Microscopic features revealed a mass of connective tissue covered by parakeratinized stratified squamous epithelium. The surface epithelium was hyperplastic exhibiting arcading pattern of proliferation with acanthosis of the spinous cell layer. The connective tissue was made of dense collagen fibers with mild inflammatory cell infiltration (Figure 4). A Final diagnosis of Focal epithelial hyperplasia was evident.

DISCUSSION

Focal epithelial Hyperplasia of oral cavity was first reported among Navajo Indians. Some authors suggested FEH can be associated with HIV infection, although the relationship between these conditions has not yet been completely clarified. Multiple papillary lesions like multifocal epithelial

hyperplasia arise with increased frequency in patients with acquired immunodeficiency syndrome (AIDS).⁷ FEH may have high risk of malignant transformation in immune compromised patients. Although it is a childhood condition, it occasionally affects young and middle-aged adults.¹ The most common sites of involvement include the labial, buccal and lingual mucosa, but gingival, palatal and tonsillar lesions also have been reported. This disease typically appears as multiple, soft, nontender, flattened or rounded scattered, pale or white lesions. More recent studies with DNA hybridization techniques suggest UPV 13 and HPV 32 to be associated with focal epithelial hyperplasia.⁵ A provisional diagnosis of smokeless tobacco lesion was included. Differential diagnosis includes squamous cell papilloma, verruca vulgaris, florid oral papillomatosis and inflammatory papillary hyperplasia. Incisional biopsy was taken. Histopathological features showed a mass of connective tissue covered by parakeratinized stratified squamous epithelium. The surface epithelium was hyperplastic exhibiting arcading pattern of proliferation with acanthosis of the spinous cell layer. The connective tissue was made of dense collagen fibers with mild inflammatory cell infiltration. Final diagnosis of Focal epithelial hyperplasia was confirmed.

Recent advances in molecular biology include light microscopy, electron microscopy, PCR and DNA microarrays techniques.⁶ Lesions that do not remit or cause functional and/or aesthetic problems can be removed by various modalities like surgery, cryotherapy, electrocoagulation, laser, chemical agents (e.g., retinoic acid), or immunostimulants (e.g., interferon).⁴ It can also be treated with topical imiquimod.¹⁰ In our case, the patient had burning sensation for past six months which caused functional impairment. Hence, we advised Topical Immunostimulants Tacrolimus ointment and periodic follow-ups was performed to monitor the status of the lesion.⁵ After six months, the patient was reviewed and the lesion healed with no malignant transformation with reduction in subjective symptoms. Long term periodic follow-up was performed for two years which showed no recurrence with potential of malignant transformation. Therefore, Clinicians need to be aware of such rare presentations to facilitate a prompt diagnosis and better treatment outcome.

CONCLUSION

Focal epithelial Hyperplasia is a Non-Oncogenic unpredictable disease which heals spontaneously and therefore does not need treatment, except in cases with functional and aesthetic impairment. The current patient, suffered from a functional impairment for which symptomatic treatment had been given and hence follow up for long term was done to keep a check on probability of recurrence. Therefore, early detection of the disease is the most important factor in the prevention of its further malignant development and prompt prognosis.

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LEGENDS



Figure 1. Left Buccal Mucosa of the patient’s cheek. The nodular area was non-tender and soft to firm in consistency



Figure 2. Greyish white multiple discrete nodules were also evident on the right buccal mucosa along the occlusal plane measuring 0.5cm in dimension

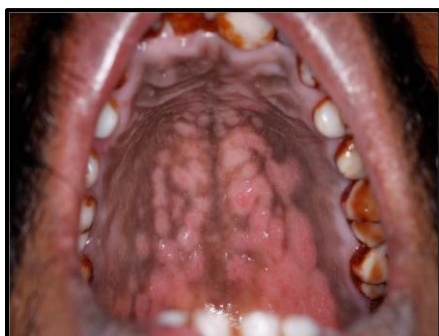


Figure 3. Greyish black diffuse pigmentation was evident on the palate extending anteriorly from the rugae region and posteriorly up to the faucial pillars

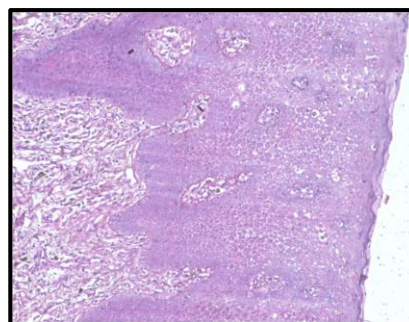


Figure 4. Microscopic features of connective tissue covered by Para keratinized stratified squamous epithelium with dense collagen fibers and inflammatory cell infiltration.