Extensive Focal Epithelial Hyperplasia: Case Report

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SOMMAIRE

L'hyperplasie épithéliale focale (HEF) est une lésion bénigne rare, qui est causée par les sous-types 13 ou 32 du papillomavirus humain et qui se manifeste dans de nombreux groupes ethniques et populations. Une incidence plus élevée au sein de groupes fermés ou de membres de la famille est signe d'une pathogenèse infectieuse. Nous décrivons ici le cas d'une femme de 21 ans avec HEF, chez qui les lésions ont persisté 10 ans. Nous proposons également un recensement de la littérature, en insistant sur les manifestations touchant la muqueuse buccale et sur les caractéristiques histopathologiques de cette affection.

Mots clés MeSH : case report; focal epithelial hyperplasia; papillomavirus, human

Cet article a été révisé par des pairs.

Focal epithelial hyperplasia (FEH) is a rare benign lesion[1,2] caused by human papillomavirus (HPV)[1–5] subtype 13 or 32.[1,4–7] Factors that have been associated with this disease include communal lifestyle, poor hygiene and poverty.[6–8]

FEH is found in numerous geographic populations and ethnic groups such as North, South and Central American Indians,[1–10] but is rare among white people.[1,3,4,7] It is characterized by multiple soft, circumscribed, sessile nodules of whitish colour or a colour similar to the adjacent oral mucosa,[1,10] affecting the lips, the cheek mucosa[2,4,6] and the lateral borders of the tongue.[2,6]

A high incidence in close communities and among family members indicates infectious pathogenesis.[5]

This report is intended to educate and inform general dental practitioners, so that they may be able to recognize, diagnose and manage FEH in their own patients.

Case Report

A 21-year-old woman attended the Stomatology Clinic of São Lucas Dental School with "lumps throughout the mouth and throat and fear of having cancer." She reported that the lesions, which were painless to palpation, had appeared spontaneously 10 years before and that she had already taken several drugs, with no success. The patient was of South American Indian descent and did not report any other systemic disturbance. The results of serological tests were unremarkable. Oral examination revealed several sessile, normochromic tissue proliferations on the cheek mucosa, lip mucosa and tongue (**Figs. 1** and **2**). Areas of lymphoid hyperplasia were observed in the patient's throat. The lesions were soft, similar in colour to the normal mucosa, and of variable diameter. The clinical diagnosis was FEH, and incisional biopsy was performed on the cheek and lip mucosa. Microscopic examination by the Pathological Anatomy Service revealed hyperkeratinized stratified epithelium exhibiting hyperplasia and deep papillomatous projections. Some squamous cells exhibited mitotic figures, called mitosoid cells (**Fig. 3**). The underlying connective tissue was well supplied with collagen and well vascularized, with some congested vessels. The patient was informed of the benign nature of the lesions,

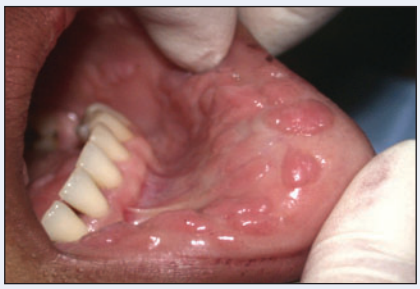

Figure 1: Labial mucosa of a 21-year-old woman shows multiple slightly elevated papulonodular lesions, typical of oral lesions of focal epithelial hyperplasia due to human papillomavirus.

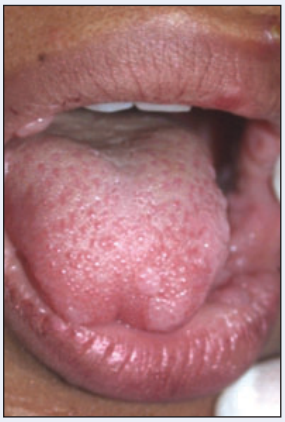

Figure 2: Lesions were also seen on the patient's lip mucosa and tongue.

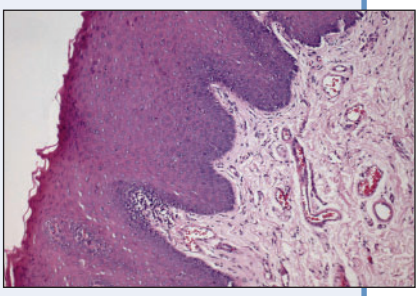

Figure 3: Photomicrograph demonstrates acanthosis, parakeratosis and epithelial hyperplasia; there is a lack of inflammatory response, and koilocytic cells with perinuclear halo are visible within the epithelium. Hematoxylin and eosin; original magnification ×40.

which were not removed because of their large number. The patient was followed for one year, during which no clinical alteration of the lesions was observed. After this period, the patient moved to another city and was lost to follow-up.

Discussion

Information about the natural history of FEH is still incomplete.[7] Some lesions may persist to adulthood without spontaneous regression,[10] as in this patient, in whom the lesions had persisted for 10 years.

The erratic clinical course of the disease, with the lesions varying in size, number, period of regression and pattern of onset, is comparable to that of some other HPV infections.[7] It is an open question whether this variation indicates different levels of infection or different levels of immune response.[7]

Dos Santos and others[8] stated that FEH was the most prevalent lesion of the oral mucosa among Waimiri Atroari Indians, reaching 21% with no differences between the sexes or among different age groups. Younger patients with FEH had multiple lesions, which were predominantly nodular, whereas older patients had few or even single lesions, which tended to be flat and papular.

The diagnosis of FEH can be made on the basis of clinical observations,[1,4] but histological examination may show characteristics of viral infection,[1] as reported here.

FEH may be associated with HIV infection,[3–4,10] although the relationship between these 2 conditions has not yet been completely clarified.[4] Suppression of the immune system leaves the patient vulnerable to opportunistic infections,[3–4] including HPV infections.[4] It should be remembered that oral lesions are not always pathognomonic of underlying systemic conditions.[2] As such, a thorough physical examination and other appropriate investigations should be carried out to establish the definitive diagnosis.[2] Moerman and others[4] stated that FEH lesions may have a great risk of malignant transformation in immunocompromised patients. However, the present authors believe that this statement is misleading, given that FEH is considered a benign condition. Many immunocompromised patients do develop many HPV lesions, some of which are caused by HPV subtypes with so-called high-risk for malignancy (such as 18, 31, 33, 35 and 51). Although current research has shown no malignant potential for FEH lesions associated with HPV 13 and 32 subtypes in immunocompromised patients, further studies are required.

A previous report[6] suggested the need for serial sectioning of FEH lesions to allow identification of mitotic cells, which may not be present in single sections.

First-line therapies for FEH include surgical or cryosurgical procedures, electrocoagulation or treatment with carbon dioxide laser.[3–5] However, these invasive therapies have more risks and side effects than topical treatment.[5]

Steinhoff and others[5] stated that therapy with interferon-β appears to be a simple, effective, noninvasive and low-risk alternative to invasive or surgical modalities. However, its efficacy in the treatment of oral lesions has not been adequately tested. The case documented by Steinhoff and others[5] represented an unusual FEH condition that required unique treatment, and the patient was followed for only 7 months, a relatively short time for a persistent viral condition such as FEH. Furthermore, in a cost analysis of various treatments for non-genital warts, Clemons and others[9] observed that the least expensive therapy was CO_2 laser ablation. Because FEH lesions may spontaneously appear and disappear, the dentist should inform the patient of the benign

nature of the lesion and then perform treatment or offer follow-up in accordance with the patient's preferences.

It is impossible to predict when and if FEH lesions will recur or where new lesions may emerge; therefore, continued follow-up is necessary.[3] It is not known whether recurrence of the lesions is related to latent infection, changes in immune response or new infections.[7]

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