

Case Report

Fibro-Epithelial Hyperplasia: A Case Report

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ABSTRACT

Aim: To report a case of Fibro-epithelial hyperplasia, its management and follow-up in a 7-year-old, pediatric patient.

Summary: Fibro-epithelial hyperplasia, a histological variant of fibroma is a proliferative fibrous lesion of the gingival tissue. A 7 year old male child reported with a complaint of gingival swelling in anterior portion of maxillary right quadrant since 1 month. In-toto excision of the lesion was performed. The histopathological examination reported the lesion to be fibro-epithelial hyperplasia.

Keywords: Gingiva, Hyperplasia, fibro-epithelial, gingival growth, chronic, excision

INTRODUCTION

The oral mucosa is constantly subjected to external and internal stimuli and therefore manifests a spectrum of diseases that range from developmental, reactive and inflammatory to neoplastic.^[1] Reactive hyperplastic lesions represent a reaction to some kind of irritation or low-grade injury like chewing, trapped food, calculus, fractured teeth and iatrogenic factors, including overextended flanges of dentures and overhanging dental restorations.^[2] These lesions may manifest as either generalized or localized.^[3] Fibro-epithelial hyperplasia, a histological variant of fibroma, is a proliferative fibrous lesion of the gingival tissue that hinders function and aesthetics. Clinically, this condition usually manifest as enlarged gingival tissues in a healthy

mouth almost completely filling the interproximal spaces, beginning near the contact area and extending apically and laterally in a smooth curve.^[4] This case report presents the treatment of an inflammatory unilateral fibro-epithelial hyperplasia.

CASE REPORT

A 7 year old male child reported to the Department of Pediatric and Preventive Dentistry with a chief complaint of gingival swelling in anterior portion of maxillary right quadrant since 1 month (Fig. 1).



Figure 1: Pre-operative photograph of the patient

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The swelling was painless. The patient gave history of gradual enlargement of the gingiva. The medical, dental, drug and family history were noncontributory. The intraoral examination showed a well-defined solitary nodular enlargement on the attached gingiva in relation to (i.r.t.) 53 (Fig. 2). The dimension of the lesion was 0.6 x 0.4 cm and it was pale pink in colour. The swelling had a sessile base, was smooth, non-compressible, non-fluctuant, firm and tender on palpation.



Figure 2: Clinical picture of the lesion



Figure 3: IOPAR i.r.t. 53, 54 & 55



Figure 4: Surgical excision

Hard tissue examination revealed deep caries i.r.t. 54 and 55. There was stains on the teeth and mild

calculus. An intra oral periapical radiograph (IOPAR) revealed no radiographic evidence of pathology but, an ill-defined radiolucency was appreciated involving enamel, dentin and pulp i.r.t 54 and 55 (Fig. 3).



Figure 5: Surgical site after excision



Figure 6: Surgical site sutured



Figure 7: Excised tissue

A provisional diagnosis of fibroma was made. The differential diagnosis included fibroepithelial polyp, peripheral cemento-ossifying fibroma and pyogenic granuloma. Following complete oral prophylaxis, patient was recalled next day for surgical excision of the lesion. After administration of local anesthesia, in-toto excision (Fig. 4) of the lesion was performed (Fig. 5) and suture was placed (Fig. 6). The excised tissue (Fig. 7) was then sent for biopsy.

After achieving hemostasis, patient was given postoperative instructions and analgesics and antibiotics were prescribed. The patient was recalled for follow-up after 7 days.



Figure 8: One-week follow up



Figure 9: Three-months follow up



Figure 10: Histopathologic picture showing pseudo-epitheliomatous stratified squamous hyperplastic epithelium overlying inflammatory infiltrate in connective tissue stroma.

At one week follow-up, healing was uneventful and the suture was removed (Fig. 8). Follow up visit after 3 months showed no signs of recurrence (Fig. 9).

The hematoxylin-eosin stained section (Fig. 10) of the soft tissue revealed pseudo-epithelial stratified squamous epithelium which was

parakeratinized showing basilar hyperplasia at focal areas. The underlying moderately dense connective tissue stroma was composed of chronic inflammatory cells. Plump to spindle shaped fibroblast and extravasated RBCs were also appreciated throughout the stroma. The histopathological features were suggestive of Fibro-epithelial Hyperplasia.

DISCUSSION

Fibrous growths of the oral soft tissues are fairly common and include a diverse group of reactive and neoplastic conditions.^[5] Tissue enlargement of the oral cavity often presents a diagnostic challenge because a diverse group of pathologic processes can produce such lesions and they imitate each other. Within these lesions, a group of hyperplasias which develop in response to a chronic, recurring tissue injury stimulates an exuberant or excessive tissue repair response.^[5] Although they are clinically similar, they differ in their histopathological features. ^[5] When the enlarged gingival tissue consists of dense fibrous tissue, as a result of chronic inflammation, it is referred to as fibrotic gingival hyperplasia.^[4]

In the present case, toothbrush trauma could be the reason of chronic irritation of gingival tissues resulting in proliferative response. Clinically, the involved gingiva appeared firm without bleeding/discharge. The chronic nature of the lesion resulted in the fibrotic changes of the gingiva.

The term fibro-epithelial hyperplasia needs to be differentiated from focal epithelial hyperplasia which is caused by human papilloma virus.^[6] In focal epithelial hyperplasia, all changes occur in the epithelial layer of the mucosa with virtually no alteration in the underlying connective tissue.^[6]

The patient has not reported with recurrence of the tissue growth till date and is under regular follow-up

CONCLUSION

For early diagnosis and management, a pediatric dental surgeon must have profound knowledge about the clinical features of oral lesions in children. Successful diagnosis of such reactive hyperplastic gingival lesion is based on the ruling

out differential diagnosis and following accurate clinical, radiographic and histological examination.

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