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Management of a Case of Fibrous Hyperplastic Lesion with Rapid Recurrence

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Abstract

Introduction: Focal fibrous hyperplastic lesions/fibro epithelial polyps known as gingival polyps. It simply refers to a fibrous connective tissue hyperplasia that develops in response to irritation from cavities, overhanging margins, calculus, maligned teeth. In this case report the treatment for proximal carious teeth with gingival polyp which again recurred during healing period has been discussed. Method: A 32-year-old male patient reported with a reddish-pink soft gingival overgrowth, entrapped in the carious distal surface of #38. It was excised under local anaesthesia with a no 15 BP blade. The excised tissue was sent for biopsy which confirmed a localised fibrous hyperplasia. Result: During healing phase within 14 days recurrence was again seen covering the cavity space of #38, for which electrocautery was used for re excision followed by root canal treatment and restoration of #38. On re-evaluation after 1 month there was uneventful healing without any recurrence. Conclusion: As in our in our case the carious tooth associated with the polyp was decided to be restored after healing of the lesion, recurrence was seen on 14th day post-operative either due to presence of the chronic irritation from carious #38 or leftover inflammatory source after excision. Hence it is important to eliminate all potential sources of chronic irritation for which a thorough course of treatment consisting of adequate management, a histopathological investigation, and regular follow-up visits should be done.

Keywords: Gingival polyp, focal fibrous hyperplastic lesions, fibro epithelial polyp

Introduction

Localised reactive soft tissue lesions appear in a variety of ways and are rather common. Four categories-focal fibrous hyperplasia, pyogenic granuloma, peripheral ossifying fibroma, and peripheral giant cell granuloma-are considered for identifying these reactive lesions [1, 2]. The more frequent focal fibrous hyperplastic lesions show in a variety of ways, such as those pedunculated swellings known as polyps. Focal fibrous hyperplastic lesions/fibro epithelial polyps known as gingival polyps are also referred to as epulis or localised gingival enlargement [3, 4]. It simply denotes a fibrous connective tissue hyperplasia that occurs in response to irritation.[5] Local variables like cavities, overhanging margins, calculus, and teeth that are maligned are considered as the primary factors contributing of gingival polyps [2]. The proximal tooth cavity along the gum line can develop a gingival polyp that resembles a class II cavity [5]. Gingival enlargement can be minimised with incisions, minor surgical procedures under anaesthesia. The most effective type of treatment for this condition is surgical excision using a scalpel, electrocautery, or lasers [5]. For revealing the cervical area of the tooth, the gingiva is removed from the tooth's surface to ensure that the restoration has an appropriate marginal finish. In this case report the treatment for proximal carious teeth with gingival polyp which again recurred during healing period has been discussed.

Case Report

A 32-year-old male patient reported to the Department of Periodontics, Kothiwal Dental College and Research Centre, Moradabad with a chief complaint of pain, mild sensitivity to cold and growth of the gingiva in lower left back tooth region since last 10 days. Intraoral examination revealed a reddish-pink soft gingival overgrowth, entrapped in the carious distal surface of #38. A provisional clinical diagnosis of gingival polyp was made after summarising the clinical presenting characteristics (figure 1). It was then decided to excised the tissue first followed by restoration of #38.

Case Management

After completing phase I therapy, blood reports were confirmed under normal limit, which included the viral markers, haemoglobin, bleeding time, and clotting time. Then under local anaesthetic infiltration of lignocaine and 1:80000 adrenaline, the polyp was held with forceps and using no 15 BP blade an incision was made from the base of the polyp to ascending border of ramus to excise the entire mass of tissue (figure 2, 3). The area was then irrigated with providone iodine solution. The site was then packed with zinc oxide

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eugenol dressing. Post-operative instructions were given along with antibiotics and analgesics. The excised tissue with a size of 10 x 15m (figure 4) was then sent for biopsy, which confirmed a localised fibrous hyperplasia or gingival polyp (figure 5). The patient was recalled after 7 days for revaluation which depicted progressive healing (figure 6), but during 14th day follow up for restoration of the carious #38, recurrence of the lesion was again observed covering the cavity space of #38 (figure 7). Hence, it was then decided for excision of the lesion with electrocautery (figure 8) followed by immediate access opening for root canal treatment of #38 followed by temporary restoration of cavity space to prevent further recurrence. Upon completion of the root canal treatment and restoration, on further follow ups, re-evaluation of the site was done after 1 month which showed uneventful healing without any recurrence (figure 9).

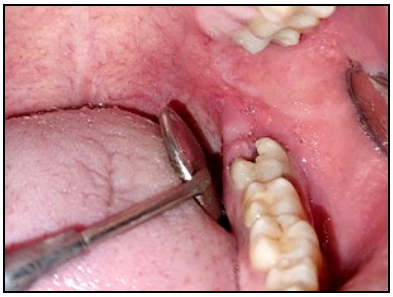

Fig 1: Pre-Operative

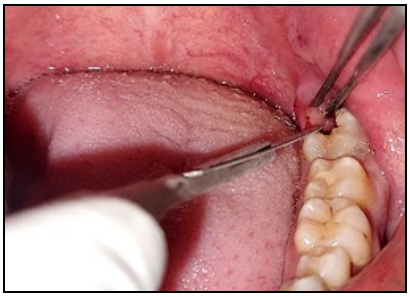

Fig 2: Excision with no 15 BP blade

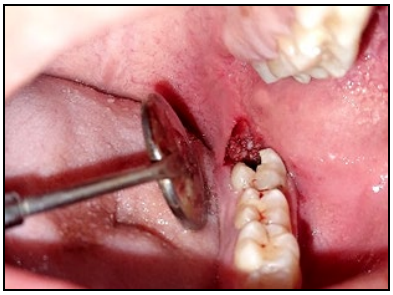

Fig 3: Post excision

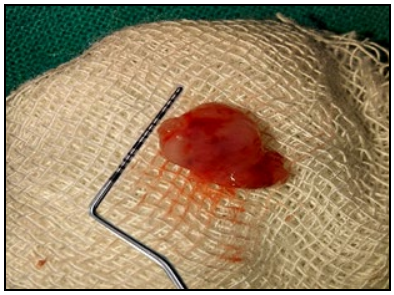

Fig 4: Excised tissue for biospy

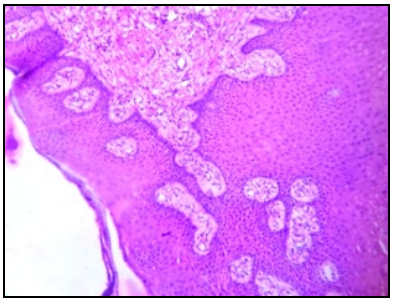

Fig 5: Histopathological slide

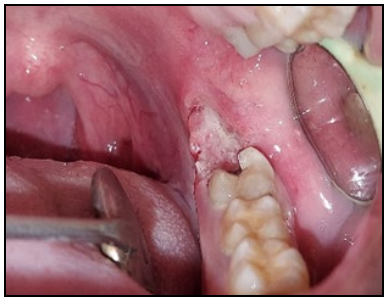

Fig 6: 7th day post-operative

Fig 7: 14th day post-operative

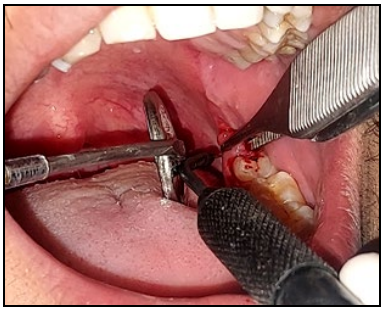

Fig 8: Re excision using electrocautery

Discussion

The oral mucosa is frequently injured by chemical and mechanical agents, which can cause a variety of mucosal diseases. A frequent benign lesion of mesodermal origin tissue tumour found in the oral cavity is a fibro-epithelial polyp or fibrous hyperplasia having a very low prevalence of malignant potential [4]. As a result, a fibrous submucosal mass develops as a result of a chronic healing process that also causes the formation of granulation tissue and scars. Clinically, it can be challenging to pinpoint the precise type of lesion hence it is crucial to examine the histological characteristics of the lesion being treated accurate diagnosis and effective therapy.

In a study conducted by Sashwati Paul *et al* [7]. a single occurrence of Fibro epithelial polyp was discovered adjacent to the chronic irritation by root stumps in relation to tooth number 46, in our case the constant source of chronic irritation was carious #38. Different age groups are more likely to develop these lesions. The expansion of this fibro epithelial polyp and its similarity to a cauliflower-like growth posed a diagnostic quandary, which was validated only after histological inspection which revealed of hyperplastic stratified squamous epithelium, elongated rete ridges, mass of

chronic inflammatory cells, including lymphocytes and plasma cells, together with dilated blood vessels, in hyperplastic connective tissue.[7]

Although malignancy is not a concern associated with gingival polyps. It is necessary to distinguish fibroepithelial polyps from papillomas, which are thought to be benign tumours. A nonpapillary layer of hyperplastic squamous epithelium covers an unremarkable fibrous stroma in fibroepithelial polyp, whereas papillomas are made up of squamous epithelial cells that display prominent acanthosis, hyperkeratosis, and a papillary development pattern [7].

Recurrence rates are lower, and they are typically brought on by continuing trauma at the same spot or by an inability to completely get rid of the traumatic element. As in our case the carious tooth associated with the polyp was decided to be restored after healing of the lesion, recurrence was seen on 14th day post-operative either due to presence of the chronic irritation from carious #38 or leftover inflammatory source after excision.[8] Also in case of persistent inflammation which participate in the healing process, there is an attempt for regeneration and healing by creating granulation tissue, however at times this granulation tissue can occasionally form excessively, leading to excessive tissue formation which might also be the reason of recurrence even after excision in our case [8].

Conclusion

Reactive lesions in oral cavity often have similar clinical features, but having a distinct histopathology. To facilitate correct patient evaluation and therapy, the identification of any reactive hyperplastic gingival lesion necessitates the form ulation of a differential diagnosis. Hence it is important to distinguish hyperplasia from neoplasia in individuals who present with a lesion using biopsy. The body's reaction to tissue injury which promotes fibroblast proliferation, leads to formation of polyps. Hence it is important to eliminate all potential sources of chronic irritation. If the lesion continues to grow, surgical excision should be performed while carefully looking for any residual inflammatory sources during the biopsy operation to avoid possibility of reoccurrence. Since these lesions have tendency for recurrence, a thorough course of treatment for such oral lesions consisting of adequate management, a histopathological investigation, and regular follow-up visits should be done.

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