Case Report

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Idiopathic Gingival Enlargement Associated with Aggressive Periodontitis: A Rare Case Report

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ABSTRACT

Background: Aggressive periodontitis and idiopathic gingival enlargement are two rare diseases of oral tissues which are even more unlikely to occur in the same individual. The current paper presents a case report of a young Indian female who presented with the chief complaint of a severe gingival enlargement and mobility in several teeth. She was diagnosed with localized aggressive periodontitis based on clinical and radiographic findings along with idiopathic gingival enlargement after all the other possible etiologies of gingival enlargement were ruled out. The patient was treated by extraction of hopeless teeth, followed by surgical excision of the enlarged gingival tissue. Two years follow up revealed that both the gingival enlargement and aggressive periodontitis were successfully treated.

Keywords: aggressive periodontitis, Gingiva, Idiopathic gingival enlargement.

INTRODUCTION

Gingival overgrowth (GO) is defined as abnormal growth of maxillary and mandibular gingiva.[1] Gingival enlargement may result from chronic or acute inflammatory changes[2] or it may occur as a result of some drugs such as calcium channel blockers, anticonvulsants and immunosuppressants. In some cases, genetic predisposition to gingival enlargement may also be seen which may or not be associated with a syndrome, such as cherubism[3], hypertrichosis[4], Laband syndrome[5], Ramon syndrome associated with juvenile rheumatoid arthritis[6]. However, occasionally, the etiology of gingival enlargement cannot be attributed to either of the above mentioned causes. In such cases, the term "idiopathic gingival enlargement" is used.

The enlargement is known to affect attached gingiva, gingival margin as well as interdental papilla of both the facial and lingual surfaces, but the involvement is usually limited to either maxillary or mandibular jaw. The enlarged gingival tissue is usually pink, firm and almost leathery in consistency. It is nonhemorrhagic unless secondarily infected.[2]

Another genetically inherited disease of the periodontium is aggressive periodontitis.[7] Aggressive Periodontitis has received particular attention amongst all periodontal diseases as it presents with characteristic clinical and radiographic findings. It is said to be localized when there is "localized involvement of first molar/ incisor with interproximal attachment loss on atleast two permanent teeth, one of which is a first molar and involving no more than two teeth other than first molars and incisors."[8] It usually has an age of onset around puberty.[8] The generalized form is usually seen in individuals under the age of 30 and is characterized by "generalized

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Fig 1: Facial asymmetry.

Fig 2: Gingival enlargement in mandibular right quadrant.

Fig 3: Gingival enlargement in maxillary right quadrant.

Fig 4: Radiograph showing severe bone loss.

Fig 5: Extraction of hopeless tooth.

Fig 6: Extraction of hopeless tooth (mandible).

Fig 7: Diagnostic casts.

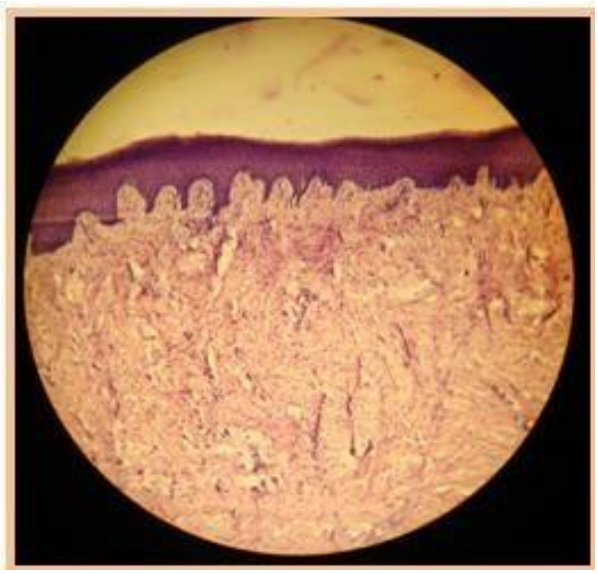

Fig 8: Histopathological view.

Fig 9: Postoperative intraoral view.

Fig 10: Postoperative extraoral view.

interproximal attachment loss affecting at least three permanent teeth other than first molars and incisors."[8] Common clinical features include rapid attachment loss and bone destruction, and familial aggregation which indicates genetic predisposition. In addition, patients with aggressive periodontitis generally, but not universally, exhibit amounts of microbial deposits inconsistent with the severity of periodontal tissue destruction, phagocyte abnormalities, and elevated proportions of A. Actinomycetemcomitans and in some populations, P. Gingivalis.[9] The case discussed shows an unusual concomitant presentation of gingival overgrowth and Localized Aggressive Periodontitis in a young female patient.

CASE PRESENTATION

A 17 yr old female patient reported to the outpatient department of Periodontics at Hitkarini Dental College and Hospital, Jabalpur, with chief complaint of unilateral bimaxillary gingival swelling on right side and mobility in multiple teeth for past six months. The patient did not give any relevant family history or medical history. No other systemic ailments were present. On general physical examination, she was found to have pallor of conjunctiva and oral tissues and appeared anaemic.

Extra- orally, facial asymmetry was seen [Fig 1]. Intra- orally, gingival enlargement was seen involving only the right side of the dentition, both maxillary and mandibular arch [Fig 2, Fig 3]. It involved both free and attached gingiva and extended till the occlusal surface of teeth. The gingiva was pink colored with leathery consistency, and the teeth involved showed various degree of mobility. Tooth mobility was Grade III according to

Millers index (1950) in relation to 14, 15, 17, 44, 45, 46 and 47.

INVESTIGATIONS

• Routine blood investigations revealed that her haemoglobin level was 12.4 gm%. Total white cell count was 9400 cells/mm3. Differential count showed that polymorphs were 48% of total white cells, lymphocytes were 46%, eosinophils 4%, monocytes 1% and basophils were also 1%.

• Radiographs (OPG, IOPA) [Fig 4]

• Intraoral diagnostic casts were made [Fig 7].

DIFFERENTIAL DIAGNOSIS

• Idiopathic Gingival Enlargement associated with Localized Aggressive Periodontitis

• Puberty induced gingival enlargement.

TREATMENT

The initial stage of treatment included reinforcement of oral hygiene measures and extraction of hopeless teeth [Fig 5, Fig 6]. This was followed by surgical excision of gingival overgrowth by internal bevel gingivectomy [Fig 9, Fig 10].[2] It was followed by rehabilitation of lost teeth to restore function. After surgical management, the contour and position of gingival was restored. Post-operative period was uneventful. During two year follow up period, there was no recurrence of the enlargement.

DISCUSSION

Considering the age and sex of the patient, it is possible that she might be suffering from either of the conditions independently, but in rare cases such as this one, the patient suffered from both the conditions simultaneously. However, since the patient reported to the hospital after the disease had progressed to such an advanced stage, it was difficult to establish as to which condition appeared first. Owing to the severity of the bone loss, and because of hopeless prognosis, it was difficult to save the teeth and hence extraction was carried out first. However, a remarkable finding during the management of this case was that even after extraction of the teeth, unlike ordinary fibrotic enlargement, no regression was seen. Following which surgical intervention was planned and carried out in order to restore healthy gingival contour. The histological section revealed acanthotic squamous epithelium. Some regions showed loose fibrous collagenous tissue with scanty focal collection of inflammatory cells. No other specific pathology was identified. These findings were consistent with diagnosis of idiopathic gingival enlargement [Fig 8].

CONCLUSION

Management of gingival hyperplasia depends on the cause of the condition. Yet, reinforcement of good home care oral hygiene regimens and periodic professional surgical excision of gingival are the treatments of choice.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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