

RECURRENT IDIOPATHIC GINGIVAL ENLARGEMENT ASSOCIATED WITH CHRONIC PERIODONTITIS: A CASE REPORT

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ABSTRACT

Gingival enlargement is associated with various drugs, syndromes and hereditary disorders. There are few case reports of it being associated with periodontitis. This is a report of a female patient who presented with a case of a nonsyndromic, recurrent gingival enlargement associated with chronic periodontitis. Initial examination revealed a diffuse fibrotic enlargement, which started during the first trimester of pregnancy 2 years ago. Since then it gradually increased and did not decrease after parturition. OPG revealed severe alveolar bone loss in maxillary and mandibular posterior regions. Extraction of teeth with hopeless prognosis was done and an incisional biopsy was taken. Histopathology revealed parakeratinized stratified squamous epithelium with dense fibrocollagenous tissue. Internal bevel gingivectomy was performed to remove enlarged tissue. Patient was asymptomatic for 12 weeks, after which she returned with a recurrent enlargement. Subsequently undisplaced flap surgery was performed to eliminate the enlargement. No recurrence has been observed since 24 weeks.

KEYWORDS: Recurrent gingival enlargement, chronic periodontitis, dense fibrocollagenous tissue

INTRODUCTION

Gingival enlargement is a common clinical condition, usually associated with specific systemic conditions and variety of local factors. It can also be inherited as in hereditary gingival fibromatosis.^[1] Unusual hyperplastic tissue response to chronic inflammation is associated with local irritants such as plaque, calculus or

bacteria.^[2] Hormonal effects, as found in puberty and pregnancy exaggerates gingival enlargement.^[3,4] It may also be complicated by certain systemic medications such as Phenytoin, Cyclosporine and Nifedipine.^[5] We report a clinical presentation of an unusual recurrent gingival enlargement associated with periodontitis and its management.

CASE REPORT

A 23-year old female patient reported to the outpatient Department of Periodontics, with the complaint of enlarged gums. Patient first noticed enlargement two years ago during first trimester of pregnancy. The lesion started as a small painless, beadlike enlargement. Since the enlargement was asymptomatic, the patient neglected it. As the enlargement progressed it resulted into a massive tissue fold covering considerable portion of the crowns, interfering with mastication and speech (Fig. 1). Besides this, no other complaints such as pain or bleeding were present. Detailed medical history and family history were found to be non-contributory to the condition. The patient exhibited no signs of hypertrichosis or mental retardation and had no history of epilepsy or intake of medication known to cause gingival overgrowth. Extraoral examination revealed symmetry of the face and there were no findings of lymphadenopathy. Intraoral examination revealed generalized severe gingival overgrowth involving both the maxillary and mandibular arches obliterating buccal, palatal and lingual vestibular spaces. The enlarged gingiva totally or partially covered the crowns of permanent teeth with only the incisal and occlusal surfaces visible. Periodontal examination revealed the presence of dental plaque and mild calculus due to the inability to maintain adequate personal oral hygiene, yet the gingiva was firm, dense, and



Fig. 1: Intraoral clinical appearance showing generalized gingival enlargement involving both maxillary and mandibular arches



Fig. 2: Panoramic radiograph showing severe alveolar bone loss with maxillary and mandibular posterior teeth

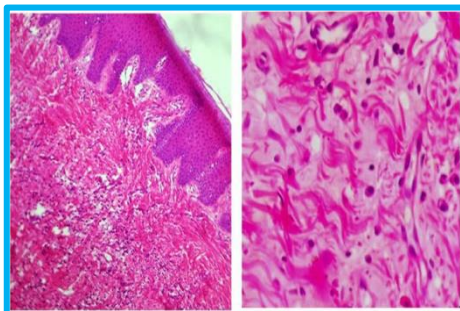


Fig. 3: Low (left) and high (right) magnification photomicrographs showing gingival hyperplasia, featuring an intense plasma cell infiltrate



Fig. 4: Excised tissue



Fig. 5: Post-operative 8 weeks



Fig. 6: Recurrent Enlargement after 12 weeks



Fig. 7: Post operative 24 weeks

fibrous in consistency. No bleeding and suppuration were noticed. Generalized mobility of teeth, malpositioning of upper anteriors and generalized combined (gingival and periodontal) pockets with probing pocket depth in the range of 5 and 12 mm were observed. Panoramic radiograph revealed severe alveolar bone loss

with maxillary and mandibular posterior region indicating severe form of periodontal disease (Fig. 2). Initial phase of therapy started with the extraction of teeth no. 26, 27, 28, 36, and 37 as they had hopeless prognosis. Incisional biopsy was performed to confirm diagnosis and to rule out any other pathologies. Histological examination (haematoxylin and eosin stain) of incised gingival tissue showed parakeratinized hyperplastic squamous epithelium with dense fibrocollagenous tissue. Moderate chronic inflammatory cell infiltrate chiefly lymphocytes and plasma cells were noted (Fig. 3). Histopathological diagnosis of inflammatory fibrous hyperplasia was made. Based on history, clinical features, laboratory investigations, and histopathological examination, the case was

provisionally diagnosed as gingival enlargement associated with chronic periodontitis, the etiologic factors of which were indefinite. Due to the severity of the enlargement, the surgical therapy performed was an internal bevel gingivectomy which was done under local anaesthesia and tissue was excised (Fig. 4). The patient was observed for 8 weeks post-operatively. Examination showed normal healing and the enlargement was eliminated (Fig. 5). Patient returned after 12 weeks with recurrence of gingival enlargement in the anterior palatal and upper and lower right posterior region associated with deep periodontal pockets (Fig. 6). After thorough scaling and root planing, an undisplaced flap surgery was performed under local anaesthesia. After suturing the flaps, a periodontal dressing was given. Patient was advised to use 0.2% chlorhexidine oral rinse twice a day for 2 weeks after each surgery. Sutures were removed one week after surgery. The patient was recalled every 4 weeks after surgery and oral hygiene reinforcement was done. The patient was observed for 24 weeks post-operatively and there was no recurrence and the patient was able to maintain oral hygiene adequately. Examination revealed a marked reduction in mobility of teeth and probing pocket depth (Fig. 7). The case presented is unique in a number of respects, the degree of enlargement and bone loss was much greater than that normally seen, the cause of the enlargement could not be determined, the extent of enlargement could not be explained on the basis of local factors alone and no known systemic factors could be identified.

CONCLUSION

Management of patients with generalized gingival enlargement should include a complete medical history and physical examination to rule out known causative agents and factors. Laboratory and histopathological examination should be performed to rule out other pathologies. The present case is unique clinical expression of recurrent gingival enlargement caused by local plaque irritation. Regular scheduled maintenance visits and maintenance therapy will be necessary to prevent recurrence and additional destruction of the periodontal tissues.

CONFLICT OF INTEREST & SOURCE OF FUNDING

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