International Journal of Research in Health and Allied Sciences
Journal home page: www.ijrhas.com
Official Publication of "Society for Scientific Research and Studies" [Regd.]
ISSN: 2455-7803

CASE REPORT

Inflammatory gingival enlargement in 38 years old female- A case report

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ABSTRACT:
Gingival enlargement is an unusual condition causing esthetic, functional, masticatory and psychological disturbances in individuals. It is a multifactorial condition that develops in response various stimuli and interactions between environment and host. The present report is the case of inflammatory gingival enlargement in 38 years old female.
Key words: Esthetic, Functional, Inflammatory gingival enlargement

Received: 19 September, 2020 Accepted: 24 September, 2020

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This article may be cited as: Jyoti D, Lalli AK, Gupta H, Yamini R. Inflammatory gingival enlargement in 38 years old female- A case report. Int J Res Health Allied Sci 2020; 6(6):24-26.

INTRODUCTION

Gingival enlargement is a multifactorial condition that develops in response various stimuli and interactions between environment and host. These may also be due to reaction to low-grade injury like calculus, fractured teeth, food lodgement, overhanging restorations and overextended denture flanges.[1] It can be plaque-induced, systemic hormonal disturbances or as a manifestation associated with several blood dyscrasias (leukemia, thrombocytopenia or thrombocytopathy).[2] Extent and severity may cause functional disturbance with speech, mastication and psychological problems. Classification of gingival enlargement:Grade 0: No signs of gingival enlargement; Grade I: Enlargement confined to interdental papilla; Grade II: Enlargement involving interdental papilla and the marginal gingiva; Grade III: Enlargement covering three quarters or more of the crown.[3]

Gingival enlargement is an unusual condition causing esthetic, functional, masticatory and psychological disturbances in individuals.[4] It may be easy to arrive at a clinical diagnosis of GE if the etiology is clearly evident; sometimes medical opinion is seek to explore the cause and identify the underlying diseases, drug interactions or the natural body changes to develop an effective treatment plan.[5] When the exact cause cannot be elucidated, it becomes challenging to establish an accurate diagnosis and hence the prognosis.[6]The present report is the case of inflammatory gingival enlargement in 38 years old female.

CASE REPORT

A 38 years old female patient reported to the Department of Periodontology, Govt. Dental college & hospital, Patiala with the chief complaint of gingival enlargement in relation with upper and lower front teeth for 3 years. History of presenting illness showed difficulty in mastication. There was history of excessive bleeding during brushing. There was no history of drug intake. Family history was non- contributory. Medical and dental history was non- significant.

Intra-oral examination revelled grade III enlargement with maxillary and mandibular anterior teeth and grade II enlargement in relation with mandibular right posterior teeth, the enlargement was diffuse and fibrotic with generalized gingival bleeding on probing. Radiographic examination showed generalized horizontal bone loss. Patients was planned for scaling and root planing after which oral hygiene instructions were given. Patient was recalled after 4 weeks and re-evaluated. There was considerable reduction in gingival enlargement, however, the tissue was still firm in consistency. Internal bevel gingivectomy was planned.

Pockets were measured using a pocket marker and bleeding points were marked on the outer surface of gingiva. Internal bevel incision was made on a point apical to the alveolar crest depending on thickness of the

tissue. Flap was reflected with periosteal elevator andresidual plaque and calculus was removed through root planing was done which was followed by thinning of the flap. Direct interrupted sutures were given. Periodontal dressing was given and the excised tissue was sent for histopathological examination. Antibiotics and analgesics were prescribed for 5 days and chlorhexidine mouth wash was given twice daily for 3 weeks. Post-operative instructions were given and the patient was recalled after 7 days for suture removal. Healing was uneventful.

Histopathologic examination showed hyperplastic stratified squamous epithelium with underlying connective tissue showing numerous blood vessels with increased inflammatory cells predominantly plasma cells and lymphocytes with increase in blood vessels. The features were suggestive of inflammatory fibro epithelial hyperplasia. Patient was put on regular follow up at monthly interval. There was no recurrence seen.

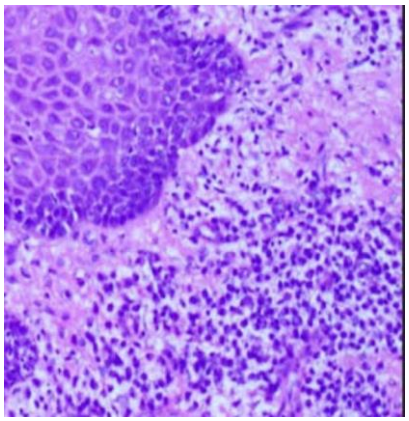

Figure 1: H and E stained section showing inflammatory cell infiltrate

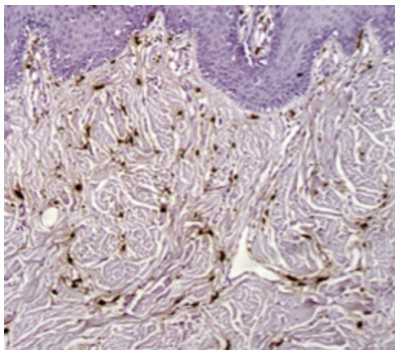

Figure 2: IHC staining showing mast cells

DISCUSSION

Gingival enlargement (GE) is defined as an abnormal overgrowth of gingival tissues. Under this category, gingival fibromatosis is a heterogeneous group of disorders characterized by progressive enlargement of the gingiva caused by an increase in submucosal connective tissue elements.[7] The etiology of GE is poorly understood but can be attributed to factors like plaque accumulation, systemic hormonal stimulation, blood dyscrasias, drugs, or idiopathic.[8]

In present case we found that inflammatory gingival enlargement was present in 38 years old female. Mani et al[9] reported a case of inflammatory gingival enlargement in a 40 years female in relation with maxillary and mandibular anterior teeth for 1 year.

Tomar et al[10] reported a case in 23 years old female patient of swelling in the gums of teeth in lower front region. The enlargement was firm and fibrotic accompanied by an inflammatory component probably due to inability to maintain adequate personal oral hygiene. Surgical therapy was carried out to provide a good aesthetic outcome. Results showed no recurrence at the end of 2 months. The importance of patient motivation and compliance during and after therapy as a critical factor in the success of treatment has also been highlighted through this case report. Gingival overgrowth is disfiguring, and can interfere in mastication and speech; hence a thorough understanding of the pathogenesis is essential.

Enlargements are a common clinical finding mostly represents a reactive hyperplasia which is a result of plaque-related inflammatory gingival disease.[11] These are the disorders of the fibrous connective tissue layer of the oral mucosa, which proliferates due to continuous stimulation and chronic irritation. This is caused due to tissue edema and infective cellular infiltration as a result of long- standing bacterial plaque, which are treated with conventional periodontal therapy, such as scaling and root planing. When chronic inflammatory gingival enlargements with a significant fibrotic component does not resolve completely after initial periodontal therapy or does not meet the aesthetic demands of the patient, surgical removal is the only treatment of choice.[12]

Enlargements of these types are often associated with longstanding bacterial plaque accumulation which will require regular professional oral prophylaxis and good patient compliance. Patient education, motivation and compliance during and after dental treatment are most important factors. Reinforcement of oral hygiene is necessary as there is tendency to revert to their original behaviour.[13] The most widely employed surgical approaches for the treatment of gingival enlargements is gingivectomy, flap technique by laser, electrocautery or conventional means. In the present case report chronic inflammatory gingival enlargement was present in relation to mandibular front tooth region causing esthetics problem in the patient.[14]

CONCLUSION

Gingival overgrowth is disfiguring, and can interfere in mastication and speech; hence a thorough understanding of the pathogenesis is essential. For the predictable outcomes oral hygiene motivation should be started at the initial stages of treatment itself. There should be at least one year follow up for the patient.

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