

IDIOPATHIC GINGIVAL FIBROMATOSIS: A LESION OF UNKNOWN ORIGIN- CASE REPORT

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ABSTRACT

Background and objective: Gingival enlargement could be the primary sign of potentially lethal systemic diseases; a correct diagnosis of these enlargements could prove life saving for the patient or at least initiate early treatment and improve the quality of life. Pertinent management depends on precisely diagnosing the origin of enlargement. The aim of publishing this case report is to present the clinical, histopathological features and treatment of inflammatory gingival enlargement which disturbed the aesthetics and masticatory function of the patient.

Method: A 18-year-old female patient reported with a chief complaint of swelling in the gums of lower right back tooth region. The enlargement exhibited varying degrees of firmness, with some areas being relatively soft, while others were firmer to the touch with spontaneous bleeding making it difficult for the patient to maintain adequate personal oral hygiene. Surgical therapy was carried out to provide a good aesthetic outcome.

Conclusion: Based on histopathological examination the enlargement was diagnosed as Inflammatory Fibrous hyperplasia. 3 months follow up of the case showed no recurrence.

Keywords: Hyperplastic, Gingiva, Enlargement, Gingivectomy, Histopathology.

Introduction

Gingival enlargement is a common feature of gingival disease which can be caused by gingival inflammation, fibrous overgrowth, or a combination of the two¹. It is a multifactorial condition that develops as interactions between the host and the environment or in response to various stimuli. It may be plaque-induced, associated with systemic hormonal disturbances or occur as a manifestation associated with several blood dyscrasias, such as leukaemia, thrombocytopenia or thrombocytopathy². These enlargements may lead to functional disturbances like difficulty in mastication, altered speech, aesthetic and psychological problems³.

The aim of this case report is to present the clinical, histopathological features and treatment of inflammatory gingival enlargement which disturbed the aesthetics and masticatory function of the patient.

Case report

Sandhya Devi, an 18-year-old female, reported to the OPD of Department of Periodontics, Rama dental college hospital and research centre, Kanpur, with the complaint of bleeding gums and swelling in the past 2 months. She reported a gradual and progressive enlargement of her gingival tissues over the past several months causing pathological migration of 46. She described experiencing discomfort, bleeding, and pain while performing routine oral hygiene practices. Furthermore, she also had difficulty eating and noticed that the growths on her gums were interfering with her ability to chew properly.

A thorough clinical examination revealed nodular growths on the right lower back tooth region on Sandhya's gingival tissues. These growths were characterized by reddish pink colour and exhibited varying degrees of firmness, with some areas being relatively soft, while others were firmer to the touch. The nodules were distributed across different regions of the oral cavity, involving both upper and lower arches. Notably, the affected gingival tissues appeared mildly swollen, and Sandhya expressed discomfort when these areas were manipulated during the examination. Based on the clinical appearance and medical history a provisional diagnosis of idiopathic gingival enlargement was made.

On the first visit, oral hygiene instructions were given after scaling. After phase I therapy, the patient was recalled. A written consent was obtained before surgical procedure. Based on amount of tissue present after phase 1 therapy, gingivectomy was performed after marking the bleeding points. Extraction of 46 was also done as the gingival enlargement had led to the pathological migration. Residual plaque and calculus were removed, and thorough root planing was done. Periodontal dressing was given, and the excised tissue was sent for histopathological examination. Microscopic examinations of sections from the tissue samples, stained with haematoxylin and Eosin, revealed the presence of para keratinized hyperplastic stratified squamous epithelium with mature fibro cellular connective tissues stroma which is moderately fibro cellular in nature. The connective tissue stroma also showed chronic inflammatory cells and dilated capillaries. Based on the histopathological findings, the condition was ultimately diagnosed as Inflammatory Fibrous hyperplasia.

The patient was given antibiotic and anti-inflammatory drugs for 7 days, and 0.2% chlorhexidine mouthwash twice daily for 3 weeks. Post-operative oral hygiene instructions were given, and the patient was recalled after 10 days for reinforcement of oral hygiene. Patient was recalled at frequent intervals for the next 3 months which showed uneventful healing. (Fig 1-6)

Discussion

Enlargements are a common clinical finding mostly represent a reactive hyperplasia which is a result of plaque-related inflammatory gingival disease⁴. 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 because of long-standing bacterial plaque⁵. 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. The most widely employed surgical approaches for the treatment of gingival enlargements is gingivectomy, flap technique by laser, electrocautery or conventional means⁶. In the present case report chronic inflammatory gingival enlargement was present in relation to mandibular right back tooth region causing esthetics problem in the patient. After non-surgical therapy, resolution of the inflammatory component was noticed, with the persistence of the fibrotic component which was then managed by surgical therapy.

Conclusion

Gingival overgrowth is disfiguring and can interfere in mastication and speech; hence a thorough understanding of the pathogenesis is essential. Differential diagnosis of gingival enlargement with thorough dental and medical history, examination and identification of etiologic factors is required to make an informed decision regarding the treatment plan of the patient for a successful resolution of the condition. This case report highlights the importance of patient motivation and compliance in treatment planning. It also highlights the critical role of histopathological examination in the accurate diagnosis of oral conditions. In this case the revised diagnosis of inflammatory fibrous hyperplasia guided the development of a tailored treatment plan to ensure the optimal care to the patient.

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Fig 1: Intraoral preoperative lesion



Fig 2: Postoperative complete removal of the lesion using scalpel technique with suture and coe- pak placement.



Fig 3: Excised tissues



Fig 4: Extraction done i.r.t 46

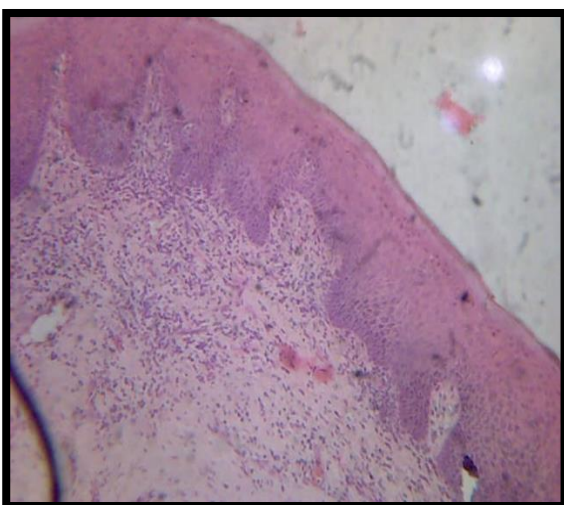


Fig 5: Histopathological presentation after excisional biopsy



Fig 6: Post-operative view after 3 months of follow