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Idiopathic Gingival Fibromatosis- Unravelling the Mystery of an Uncommon Condition: A Case Report

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Abstract:

- ***Background/Aims:***

Idiopathic gingival fibromatosis is an uncommon condition marked by different levels of fibrous enlargement of the attached gingiva, with no identifiable cause. It may appear as an individual condition or as part of a broader syndrome. This report describes about a 19-year-old female who exhibited extensive gingival enlargement affecting both the maxillary and mandibular arches, with the gingiva almost completely covering the teeth. The clinical differential diagnosis considered drug-induced gingival enlargement and hereditary gingival fibromatosis.

- ***Treatment:***

The excessive gingival tissue was excised using conventional gingivectomy using scalpel. Since the enlargement was widespread and involved all quadrants bilaterally, the procedure was performed under local anaesthesia. Healing progressed smoothly, and the patient showed marked improvement in facial and oral appearance.

- ***Conclusion:***

Idiopathic gingival fibromatosis is a uncommon disorder characterized by progressive fibrous enlargement of the gum tissues. Surgical removal of the overgrown tissue remains the primary treatment option, though recurrence is frequently observed.

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I. INTRODUCTION

Idiopathic gingival fibromatosis is an uncommon, painless, non-bleeding, and non-exudative proliferative enlargement of the gingiva.[1] Its cause remains unknown, which is why it is termed "idiopathic." The condition typically appears during the eruption of permanent teeth, though it may also arise in the deciduous dentition and, in rare cases, at birth.[2]

It is a slowly progressive, benign overgrowth that involves all components of the gingiva—the marginal, attached, and interdental areas. In severe cases, it can extend over the tooth surfaces, resulting in aesthetic and functional difficulties.[3–5]

Clinically, the gingiva presents as firm, fibrotic, and pink in colour.

The fibromatosis can be of two types depending upon the form- nodular or symmetric. The nodular form is localized and multiple whereas the symmetric form manifests as single, uniform enlargement of the gingiva. The most common type is the symmetric form.[6]

Idiopathic gingival enlargement may occur as an isolated condition or as part of various syndromes, which can be inherited in either an autosomal-dominant pattern (such as Laband or Rutherford syndromes) or an autosomal-recessive pattern (such as Cross, Murray-Puretic-Drescher, or Ramon syndromes).[7]

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Management depends on the extent of gingival overgrowth. Mild cases may respond to thorough scaling, while more pronounced enlargements require surgical removal through techniques such as gingivectomy, gingivoplasty, electrocautery, or laser excision.[3]
This report presents a non-syndromic case of generalized idiopathic gingival fibromatosis that became evident after the eruption of the permanent teeth. Surgical treatment using gingivectomy resulted in significant improvement in both appearance and oral function.

II. CASE REPORT

A 19-year-old female presented to the Department of Periodontics at DAPMRV Dental College, Bengaluru, with a primary complaint of gingival enlargement involving both the maxillary and mandibular arches. The overgrowth interfered with speech and mastication and prevented complete lip closure, resulting in aesthetic concerns. The patient reported that the enlargement had progressively developed following the eruption of her permanent teeth. Both medical and family histories were unremarkable, and no endocrine abnormalities were identified. She was not taking any medications such as antiepileptics, antihypertensives, or immunosuppressants that are commonly associated with gingival overgrowth.

On intraoral examination, generalized, gingival overgrowth involving both the mandibular and maxillary arches was noted. The gingiva was pink in colour, firm and dense in consistency and partially covered the crowns of all teeth. No acute inflammatory signs were present. Full-mouth periodontal charting, including assessment of probing depth and clinical attachment level was performed which revealed pseudo-pockets ranging from 7- 10 mm throughout the mouth, with moderate accumulation of plaque and calculus deposits. Malpositioning of teeth was also noted.

The radiographic findings, correlated with those of the clinical examination, revealed generalized alveolar bone loss. The peripheral blood results were normal and correlated with an absence of any history of systemic disease.

Based on all these above findings, a provisional diagnosis of idiopathic gingival enlargement was made.

- *Pre Operative*

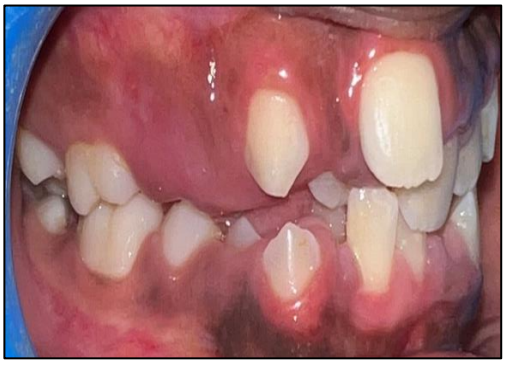

Fig 1- Preoperative Right Lateral View

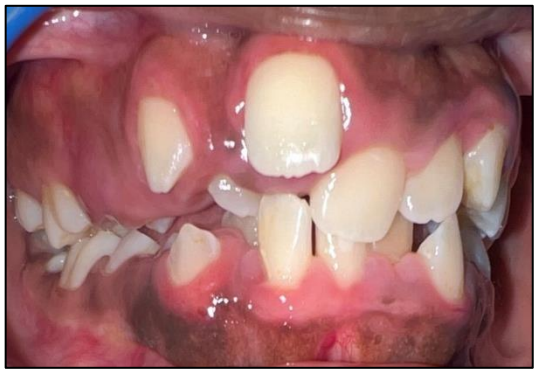

Fig 2- Preoperative Front View

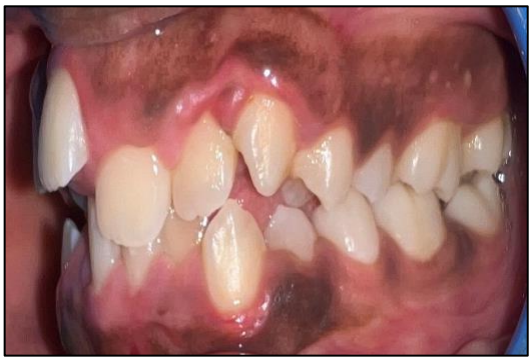

Fig 3- Preoperative Left Lateral View

- *After Incision*

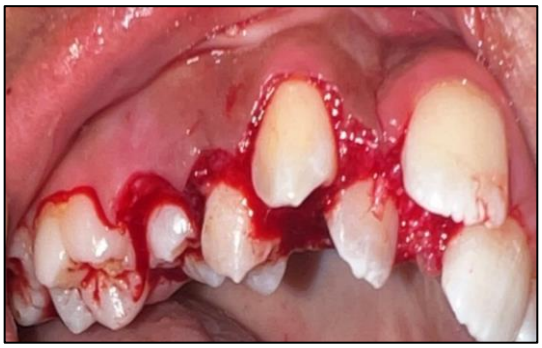

Fig 4- After Incision

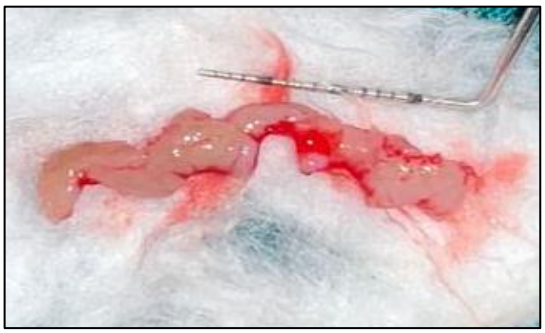

Fig 5- Excised Tissue

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➢ *Post Operative*

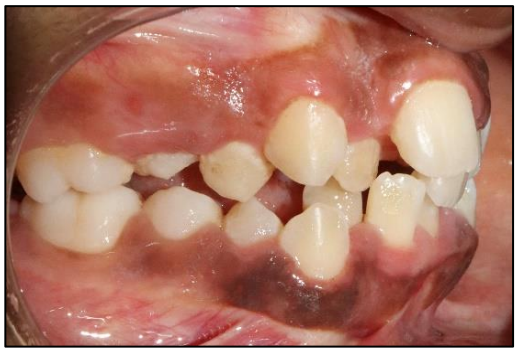

Fig 6- Postoperative Right Lateral View

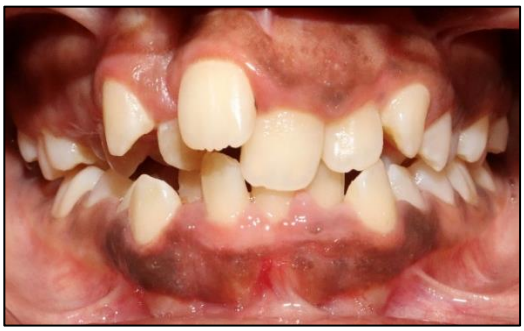

Fig 7- Postoperative Front View

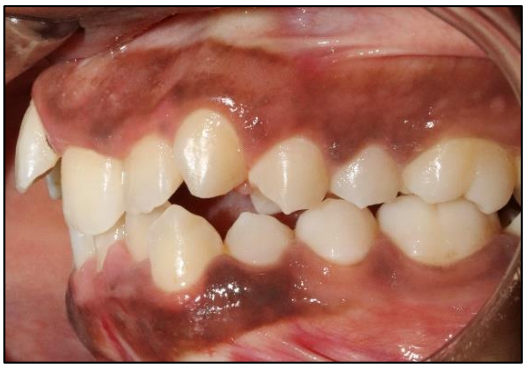

Fig 8- Postoperative Left Lateral View

III. TREATMENT

The patient first received Phase I periodontal therapy, which included scaling and root planing along with instructions for maintaining proper oral hygiene. Phase II therapy consisted of surgically removing the gingival enlargements, performed sextant by sextant under local anaesthesia. Transgingival probing helped identify bony enlargements on the buccal surfaces of the maxillary posterior region, which were later confirmed during surgical exposure. Gingivectomy was carried out on both the buccal/labial and palatal/lingual aspects of the maxillary and mandibular arches. The excised tissue [Figure] was submitted for histopathological evaluation.

After one month, the patient returned for review. Gingivoplasty was completed, quadrant by quadrant, under local anaesthesia over the following weeks. The patient was advised to maintain excellent oral hygiene, and periodic follow-up was ensured. Subsequently, she was referred to an orthodontist for correction of the existing malocclusion.

IV. HISTOPATHOLOGICAL FINDINGS

The gingival specimens removed from various sites (Figure) were immediately fixed in 10% buffered formalin and submitted for histopathological analysis. The tissues were processed, embedded in paraffin, and various sections were prepared. These were stained with hematoxylin and eosin and examined microscopically.

Histologic evaluation showed parakeratinized stratified squamous epithelium with elongated, slender rete ridges. The underlying connective tissue exhibited densely packed collagen fibre bundles with numerous fibroblasts ranging from plump to spindle-shaped. Localized areas of chronic inflammatory infiltrate were also present, predominantly composed of lymphocytes.

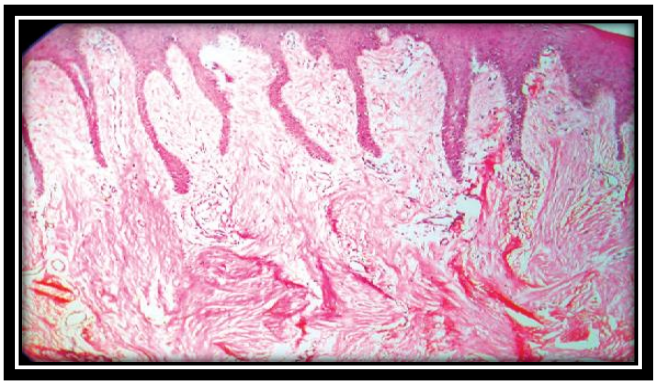

Fig 9- Histopathological Smear

All these features were suggestive of idiopathic gingival fibromatosis. Recall appointments were scheduled after every 6 months and after a year of follow-up no recurrence of enlargement was seen

V. DISCUSSION

Gingival fibromatosis may have a genetic basis, referred to as hereditary gingival fibromatosis, or it may arise secondary to other factors such as chronic inflammation, leukemic infiltration, or the use of certain medications including anticonvulsants, antihypertensives, and immunosuppressants. In the present case, no relevant family history was reported; therefore, the condition was diagnosed as a non-syndromic, idiopathic gingival fibromatosis.

Gingival enlargement is most commonly observed during the exfoliation of primary teeth or the early eruption of permanent teeth. It is rarely present at birth and uncommonly develops in adulthood. The condition may manifest at different stages of dental development, which include the pre-eruptive period (before 6 months), deciduous dentition (6 months to 6 years), mixed dentition (6 to 12 years), permanent dentition prior to adolescence (12 to 20 years), and permanent dentition after adolescence (over 20 years). In this case, the enlargement commenced following the eruption of the permanent dentition.

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Gingival fibromatosis can interfere with chewing and speech, cause tooth misalignment, impair aesthetics, and lead to psychological distress; therefore, timely treatment is essential.

When gingival overgrowth is accompanied by periodontal pockets and loss of alveolar bone, gingivectomy is the treatment of choice. In this patient, the procedure was performed to eliminate pockets, facilitate plaque control, reduce bulky gingival tissue, and support healing or regeneration of the underlying bone defect.

Histopathology in this case showed the characteristic features of hereditary gingival fibromatosis—dense fibrous connective tissue covered by keratinized epithelium—as reported by Tipton et al. (1997) and Hart et al. (1998). Treatment options depend on the extent of enlargement, but recurrence after surgery remains unpredictable. However, maintaining excellent oral hygiene through regular check-ups, professional cleaning, and proper home care can minimize or delay recurrence. Surgical treatment is known to significantly improve quality of life by removing excessive tissue, easing eating and speaking, enhancing plaque control, and providing considerable aesthetic and psychological benefits.

REFERENCES

[1]. Bittencourt LP, Campos V, Moliterno LF, Ribeiro DP, Sampaio RK. Hereditary gingival fibromatosis: Review of the literature and a case report. Quintessence Int 2000; 31:415-8.
[2]. Ramer M, Marrone J, Stahl B, Burakoff R. Hereditary gingival fibromatosis: Identification, treatment, control. J Am Dent Assoc 1996; 127:493-5.
[3]. Coletta RD, Graner E. Hereditary gingival fibromatosis: a systematic review. J Periodontol 2006; 77(5):753–64.
[4]. DeAngelo S, Murphy J, Claman L, Kalmar J, Leblebicioglu B. Hereditary gingival fibromatosis — a review. Compend Contin Educ Dent 2007; 28(3):138–43, quiz 144, 152.
[5]. Kelekis-Cholakis AK, Wiltshire WA, Birek C. Treatment and long-term follow-up of a patient with hereditary gingival fibromatosis: a case report. J Can Dent Assoc 2002; 68(5):290–4.
[6]. Baptista IP. Hereditary gingival fibromatosis: a case report. J Clin Periodontol 2002; 29(9):871–4.
[7]. Gorlin RJ, Cohen MM, Levin LS. Syndromes with gingival/periodontal components. In: Syndromes of the Head and Neck. 3rded. New York: Oxford University Press; 1990. p. 847-58.