

**Case Report**

**IDIOPATHIC GINGIVAL FIBROMATOSIS-A RARE CASE REPORT  
WITH TREATMENT AND 1 YEAR FOLLOW UP**

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**ABSTRACT**

Idiopathic Gingival fibromatosis is a heterogenous group of disorders characterized by progressive enlargement of the gingiva. It is a proliferative fibrous lesion of the gingival tissue that causes esthetic and functional problems. It is a condition of undetermined cause and hence is designated as “idiopathic”. It can develop as an isolated disorder, but mostly it is associated with some syndrome. Here we present an unusual case of non-syndromic generalized idiopathic gingival fibromatosis in a 13yr old male patient. Surgical treatment with external bevel gingivectomy was performed and patient is under regular follow up. No signs of recurrence of enlargement was noted after 1 year follow up.

**Key Words:** *Gingival Fibromatosis, Non-syndromic Idiopathic Gingival Fibromatosis, Gingivectomy*

**INTRODUCTION**

Gingival fibromatosis is a heterogeneous group of disorders characterized by progressive gingival enlargement causing difficulty in speech and mastication. The most commonly encountered gingival enlargements in dental-office are inflammatory gingival enlargement, drug induced gingival enlargement, secondary to leukemic infiltration, conditioned gingival enlargements and syndrome associated gingival enlargement.

There do exists a rare group of disorders which occurs as benign, asymptomatic, non haemorrhagic, proliferative, progressive enlargement of gingiva of undetermined cause designated as idiopathic gingival fibromatosis. The prevalence rate is one in 750000 people. This condition is usually manifested during eruption of permanent dentition, occasionally associated with primary dentition and very rarely occurs at birth. The associated gingival enlargement shows varied clinical presentation can present as localised form or generalised form. Gingival enlargement is slow growing, non erythematous and firm in consistency. The condition remains asymptomatic until massive enlargement occurs and starts interfering with speech and mastication. Due to increased mass of tissue, it serves as nidus for plaque accumulation and oral hygiene measures are compromised. Treatment of idiopathic gingival enlargement is dictated primarily by patient's chief complaint. In cases of mild to moderate enlargement thorough scaling and root planning and strict follow up regimen can be done. Surgical treatment is indicated only if gingival enlargement is massive and interferes with patient's speech and mastication. Patients should under regular follow up to evaluate recurrence.

**CASES**

A 13 year male old patient reported with a chief complaint of slow growth in gums all over the dentition since past one year. The growth was slow growing and continued to grow and presently interferes with speech and mastication. His parents accompanied him and did not give any significant medical or dental history that could contribute to gingival enlargement.

General examination of the patient showed normal physical and mental growth for his age. There was no history of epilepsy, mental retardation, or intake of medications that could cause gingival enlargement. Family history was non contributory. Extra oral examination revealed class II skeletal base, incompetent lips and convex profile. On intra oral examination there was generalised diffuse enlargement of gingiva extending till occlusal third of the teeth. Both maxillary and mandibular dentition was affected. Gingival

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enlargement showed no signs of bleeding or suppuration. Pseudo pockets of about 7 mm were present. Orthopantomograph of the patient revealed the eruption premolars and permanent second molars and no significant pathological changes. Routine blood investigations showed values within physiological limits. Based on clinical, medical, dental, family history and correlating with clinical and radiographic examination a provisional diagnosis of idiopathic gingival fibromatosis was made. Complete scaling was done and 0.2% chlorhexidine mouthwash was prescribed for one month. On reevaluation after one month quadrant wise external bevel gingivectomy was performed under local anesthesia in four sittings over 4 consecutive weeks (Figure 3). Excised tissue was sent for histopathological evaluation. Patient was asked to maintain good oral hygiene and report for regular follow up. Histopathology of the excised gingival tissues showed keratinised surface epithelium with tall rete pegs and connective tissue made up of dense collagenous fibres with spindle type of fibrocytes compressed within it. It was avascular and some foci of inflammatory cells were seen. All these features were consistent with diagnosis idiopathic gingival fibromatosis. Regular follow up of patient for 1 year revealed no signs of recurrence (Figure 4).

### **DISCUSSION**

This article reports a case of idiopathic gingival enlargement. Idiopathic gingival fibromatosis is a rare, benign, asymptomatic, non-hemorrhagic, and non-exudative proliferative lesion of gingival tissue (Bittencourt, 2000). It is a rare disease, affecting only one in 750,000 people while it can develop as an isolated disorder or a feature of a syndrome (Pappachan *et al.*, 2002).



**Figure 1: Pre-operative view showing generalised diffuse gingival enlargement covering till occlusal third of teeth**



**Figure 2: Orthopantomograph of the patient showing eruption premolars and permanent second molars**

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**Figure 3: External bevel gingivectomy performed in I quadrant under local anesthesia**



**Figure 4: One year post operative view showing complete crowns of incisors and canines and no signs of recurrence of enlargement**

Commonly encountered gingival enlargements may be associated with inflammation, use of medications such as phenytoin, cyclosporine, and calcium channel blockers as a result of leukemic infiltration or associated with syndromes. The etiology of Idiopathic gingival fibromatosis still remains to be undetermined. Though the precise mechanism of idiopathic gingival enlargement is unknown it is often seen confined to gingival fibroblasts.

Although gingival tissue may appear normal at birth, hyperplastic gingiva may become evident with the eruption of primary or permanent dentition, suggesting a trauma-induced tissue reaction during the eruption (Gupta and Maheshwari, 1996).

There is no evident data regarding the cellular and molecular mechanism that trigger the hyperplastic response among gingival fibroblasts. Some authors report an increase in the proliferation of gingival fibroblasts (Shirasuna *et al.*, 1988), whereas others report slower-than normal growth (Tiwana *et al.*, 2005). There is constant slow increase in tissue mass resulting in complete closure of teeth and resulting in difficulty in speech and mastication. Inflammatory factors secondary to plaque accumulation also contributes for significant enlargement. A high rate of recurrence also has been reported; hence patient should be under regular follow up.

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In the present case gingival enlargement was evident only at age of 12 yrs and continued to grow covering till the occlusal aspect of teeth. Patient was systemically healthy. There was no contributory medical, drug or familial history. No associated syndrome was evident. Hence a provisional diagnosis of idiopathic gingival enlargement was made and histopathology report confirmed the same. Since patient had massive gingival enlargement gingivectomy was performed and patient was regularly followed up. There was no evidence of recurrence during one year follow up period.

### **Conclusion**

The etiology and pathogenesis of Idiopathic gingival enlargement is yet to be determined. Though there is no clear cut documented data about the management of these cases symptomatic management continues to be the only option. The mechanism of gingival enlargement and the factors which trigger the recurrence are yet to be found. Further research and genetics studies in this area could be of great help for this group of patients who could benefit immensely if they could get a permanent cure. As doctors we should always realise that fear of unknown is the worst and we should focus our research towards these areas.

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