

## Case Report

### Idiopathic Gingival Enlargement and its Management - A Case Report

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#### Abstract

Idiopathic gingival enlargement is a condition of unknown cause. Various factors to be associated with gingival enlargement include pharmacological or genetic disorders. In the genetic disorders, it may be an isolated abnormality or a part of syndrome. This case is of idiopathic gingival enlargement in a 17 years old female. The patient presented with generalized diffused gingival enlargement involving the maxillary and mandibular arches extending on buccal and palatal surfaces and covering incisal/occlusal third of the tooth resulting in difficulty in speech and mastication since last 10 years. The patient also gave a history of getting multiple teeth removed from upper left and right back tooth region of mouth about 2 years back. . Idiopathic gingival enlargement is a lesion of the gingival tissue that causes esthetic and mastication problems. The diagnosis was made on the basis of past dental, medical, family history along with clinical examination. The biopsy report also confirmed the diagnosis of gingival enlargement. The treatment included Gingivectomy which was carried out in all four quadrants.

**Keywords:** Gingival enlargement, Gingivectomy, Idiopathic Gingival enlargement, Elephantiasis Gingivae, Fibromatosis

#### Introduction

Gingival enlargements is dependent on number of factors. The etiology and pathogenesis of gingival enlargement are still not well known; however it could be directly linked with 3 factors: individual susceptibility, local factors (dental plaque, caries, and iatrogenic factors) and the action of chemical substances and their metabolites. It has been designated by such terms as fibromatosis<sup>1</sup>, fibromatosis Gingivae elephantiasis Gingivae<sup>1</sup> or congenital macrogingiva<sup>1</sup> is a slowly progressive gingival enlargement caused by collagenous overgrowth of the gingival fibrous connective tissue<sup>2</sup>. A good oral hygiene is always important to achieve normal healthy Gingiva. The disorder doesn't bear any relationship to the hyper cellular and neoplastic fibromatoses that can occur in soft tissue and bone<sup>2</sup>. Enlargement of the maxillary and mandibular Gingiva is a feature of idiopathic fibrous enlargement of Gingiva. This massive gingival enlargement appears to cover the tooth surfaces and displace the teeth, though the cause of the disease is unknown, there appears to be a genetic predisposition<sup>3,4</sup>. Due to pain associated with idiopathic gingival enlargement it leads to loss of masticatory ability and difficulty in swallowing food. Because of which patients swallow partially chewed food which causes gastric disturbances. Idiopathic gingival enlargement and poor hygiene shows a positive

co-relation. A study of several families found the mode of inheritance to be autosomal recessive in some cases and autosomal dominant in other<sup>5, 6</sup>. There are 2 genetically separate loci that are responsible for the autosomal dominant type of Fibromatosis<sup>7</sup>. Idiopathic gingival enlargement is most commonly associated with hypertrichosis<sup>13</sup> and associated with mental retardation and epilepsy.

It is very commonly seen that patient come to the dentist with gingiva which is diffusely enlarged that the teeth are completely covered, or if the gingiva is enlarged before tooth eruption the fibrous tissue may interfere or prevent eruption. In idiopathic gingival enlargement large masses of firm, dense, resilient, leathery in consistency and minutely pebbled surface with insensitive fibrous tissue that covers the alveolar ridges and extends over the teeth is seen<sup>1</sup>. Gingiva of the patient is so enlarged that clinically protruded lips can be easily seen<sup>1</sup>.

#### Case report

A 17 year old female reported to department of Periodontology of Dasmesh institute of Research and Dental Sciences with a chief complaint of swollen gums in the upper and lower back region of the mouth with no significant medical or family history. She stated that swelling was present since 10-12 years. Parents of the patient also report that the swelling had slowly and progressively increased in size to attain its present size. She also complains of bleeding from gums while brushing her teeth. She has no associated history of pain or sensitivity to hot or cold food stuffs. She did not give any history of drugs intake, fever, anorexia, weight loss, seizures, hearing loss, nor having any physical or mental disorder. On clinical examination extraorally the face was bilaterally symmetrical, Dolicocephalic with hypoplasia of middle third of face Lips were Incompetent and protruded in nature (figure 1). On Lymph Node Examination a single, unilateral, ovoid lymph node was palpable in the right submandibular region measuring about 1X2 cm in size, which if firm in consistency, slightly tender, mobile, non-compressible, non-reducible and non-fluctuant. Intra oral examination shows generalized,

diffused, p nodular consistency gingival enlargement extending more on the Facial and Buccal aspect of upper and lower arches seen w.r.t 14, 15, 16, 17, 24, 25, 26, 27, 35, 37, 45, 46, 47; covering whole of coronal portions leaving only the Occlusal thirds visible in oral cavity i.e. Grade 3 According to the Bokenkamp Classification (1994)<sup>10</sup>. Due to enlargement there was pathological migration seen in both upper and lower anterior segments. (figure 2, 3, 4, 5)

#### Investigations

Intraoral Periapical and panoramic radiograph revealed no bone loss (figure 6, 7). Over-retained deciduous teeth 54 present (figure 5). Impacted teeth 22, 23 present. Hematological investigations were within normal limits. Biopsy was done which revealed bulbous increase in the connective tissue, which was relatively avascular and had densely arranged collagen bundles, numerous fibroblasts, and inflammatory cells.

#### Differential Diagnosis

The following could be the differential diagnosis in this case: Fibro-osseous lesion, Fibrous epulis / peripheral fibroma, Angiogramuloma/pyogenic granuloma, Peripheral giant cell granuloma, gingival cysts, abscesses such as gingival, periodontal, Periapical or pericoronal.

#### Final Diagnosis

On the basis of medical, family, drug history and clinical findings and biopsy reports, it was diagnosed as idiopathic gingival enlargement.

#### Treatment

After completion of Phase I treatment, a quadrant-wise Gingivectomy was performed under local anesthesia. Post operative photographs showed Healing Index 4 according to HEALING INDEX OF LANDRY, TURNBULL AND HOWLEY<sup>11</sup> (figure 10, 11). Coe-pack was given in all four quadrants to reduce patient discomfort.



**Figure. 1 PATIENT PROFILE**



**Figure. 8**



**Figure. 9**

**RADIOGRAPH INVESTIGATIONS**



**Figure. 10**



**Figure. 11**

**POST - OPERATIVE PHOTOGRAPH**



**Figure. 2**

**Figure. 3**



**Figure. 4**

**Figure. 5**

**INTRA-ORAL PHOTOGRAPHS**



**Figure. 6**



**Figure. 7**

## DISCUSSION

Idiopathic gingival enlargement may be congenital or hereditary. As the case presented with no significant medical or family history and the enlargement is non-inflammatory therefore the condition is diagnosed as idiopathic gingival enlargement.

Idiopathic gingival enlargement is a rare condition with undetermined causes. Some cases have a hereditary basis, it is autosomal dominant or autosomal recessive. Usually begins with the eruption of primary and secondary dentition and may regress after extraction, suggesting that the teeth or the dental plaque attached to it may be the initiating factor reaching the vestibule with involvement of secondary inflammation.<sup>6</sup> Clinically it affects the attached gingiva, gingival margin, interdental papillae involving the facial and lingual surface and found as pink, firm, leathery in consistency. Treatment part involves the scaling, root planning followed by Gingivectomy.

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