

Case Report**Idiopathic gingival fibromatosis**

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ABSTRACT

Gingival fibromatosis (GF) is a heterogeneous group of disorders characterized by progressive enlargement of the gingiva caused by an increase in submucosal connective tissue elements. Many cases are iatrogenic; some are inherited while others are idiopathic. We describe a case of ten year old girl brought from the department of pedodontics to periodontics with the chief complaint of gradual and progressive enlargement of both upper and lower gingival tissues from the age of 2 years. Gingivectomy was performed quadrant-wise under local anesthesia to restore the patient's esthetics and functional/ masticatory needs.

Key Words: Gingiva, Fibromatosis, Gingivectomy

INTRODUCTION

Gingival fibromatosis (GF) is a heterogeneous group of disorders characterized by progressive enlargement of the gingiva caused by an increase in submucosal connective tissue elements. Many cases are iatrogenic; some are inherited while others are idiopathic¹. Hyperplasia could be directly linked to three factors: individual susceptibility, local factors (dental plaque, caries, and iatrogenic factors) and the action of chemical substances and their metabolites.

Synonyms of GF include elephantiasis gingiva, congenital hypertrophy of the gingiva, fibromatosis gingivae, Gigantism of the gingiva, symmetric fibroma of the palate, congenital macrogingivae, hereditary gingival hyperplasia, and hypertrophic gingiva [1,2].

Due to massive gingival enlargement, an affected child usually develops an abnormal

swallowing pattern and experiences difficulty with speech and mastication. Oral hygiene and mastication may be compromised, which further complicates the condition.

Acute pain associated with gingival hyperplasia produces loss of masticatory ability, leading to difficulty swallowing food. Therefore these patients have a tendency to swallow partially crushed food which will eventually cause gastric disturbances. The purpose of this case report was to highlight the etiological factors and treatment.

CASE REPORT

A ten year old girl was brought from the department of pedodontics to periodontics with the chief complaint of gradual and progressive enlargement of both upper and lower gingival tissues from the age of 2 years, preventing proper speech articulation and mastication, and causing inadequate lip apposition and poor esthetics. The parent indicated that the enlargement became

more pronounced at the time of eruption of the deciduous teeth. There was no history of epilepsy or long term medication for any ailments. Developmental milestones and other systems of the child were normal. This was an isolated case in their family according to the parents. The other associated problems were difficulty in speech, mastication and swallowing.

EXAMINATION

Extra oral examination revealed a convex facial profile with a bimaxillary protrusion, incompetent lips and a broad nasal bridge. Intraorally, severe diffuse gingival enlargement involving the marginal, interdental and attached gingiva of both arches was observed, covering almost all the surfaces of the teeth (Fig 1 & 2), which

Figure 1: upper and lower arch



were generalized pink in color except maxillary anterior teeth it was reddish pink in color, and had a firm and fibrous consistency. The teeth were barely visible as they were buried deep within the enlarged gingiva.

Due to the massive gingival enlargement, normal lip closure was prevented. The child experienced difficulty in mastication and had developed an altered tongue position with abnormal swallowing and open occlusal relationship. Drooling of saliva was also noticed. Based on the history and clinical

features, the case was diagnosed as idiopathic gingival fibromatosis.

Histopathological investigations after Excisional biopsy showed a lining of stratified epithelium focally keratinized with elongated rete ridges showing a tubular pattern and arborization. The Subepithelial tissue was composed of interlacing bundles of dense collagen interspersed with loose fibrovascular connective tissue. On the basis of the medical, family, and drug histories and the clinical findings, this was diagnosed as Idiopathic gingival fibromatosis.

TREATMENT

Gingivectomy was performed quadrant-wise under local anesthesia to restore the patient's esthetics and functional/masticatory needs. After instillation of the

Figure 2: Incision point



Figure 3: Excision of tissues



desired level of local anesthesia, the quadrant-wise bleeding points were marked using a pocket marker to the cervical line of teeth on either side of the gingival hyperplasia. The incision was made (Fig .2). Kirkland knives were used for incisions on the facial, lingual, and cervical surfaces. Orban periodontal knives were used for interdental incisions. Excisions of tissues were done (Fig.3) Pressure pack was used to control postoperative bleeding. The same

procedure was carried out on the other quadrants. Post operative after 20 days reduction of the gingival hyperplasia shows (Fig. 4). The child is currently undergoing

Figure 4: Reduction of enlargement in both arches



orthodontic treatment for the anterior open bite and a habit breaking appliance has been placed for the correction of tongue thrust. The child is under follow up observation.

DISCUSSION

Idiopathic gingival fibromatosis may be congenital or hereditary. The mode of transmission is mainly autosomal dominant [3,4]. Hyperplasia can occur after therapy with drugs like phenytoin, cyclosporine, nifedipine and nitrendipine [5-8]. Long term use of these drugs has to be ruled out.

The condition may be associated with physical developmental retardation and hypertrichosis. Although gingival tissue may appear normal at birth, hyperplastic gingival fibromatosis may become evident with the eruption of primary or permanent dentition, suggesting a trauma - induced tissue reaction during the eruption [9].

Sometimes gingival enlargement does not occur until the eruption of the permanent dentition. Further enlargement does not occur once the growth of jaw is completed [10].

The constant increase in the tissue mass can result in delayed eruption and displacement of teeth, arch deformity, spacing and migration of teeth [11]. The condition is not painful until the tissue enlarges to partially cover the occlusal surface of the molars and become traumatized during mastication, which was observed in the present case.

Histologically, the gingival hyperplasia is mainly due to an increase and thickening of mature collagen bundles in the connective tissue stroma [11]. The nodular appearance can be attributed to the thickened para hyperkeratinized epithelium [12].

The only treatment of choice in this condition was gingivectomy to satisfy the patient's esthetics. Though the tissue appeared to be pale and firm, the surgical procedure was complicated with excessive hemorrhage.

Due to recurrence of condition patient may have to undergo repeated gingivectomy procedures. Hence psychological counseling is a must for patients and parents.

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