

Idiopathic Gingival Hyperplasia – Short CommunicationAnindita Bhagawati^{1*}, A.K Adhyapok², S.C Debnath³,¹Post graduate trainee, Department of Oral and Maxillofacial Surgery, Regional Dental College, Guwahati, Assam²Professors and HOD, Department of Oral and Maxillofacial Surgery, Regional Dental College, Guwahati, Assam³Reader, Department of Oral and Maxillofacial Surgery, Regional Dental College, Guwahati, Assam***Corresponding author**

Anindita Bhagawati

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Abstract: Idiopathic gingival fibromatosis is a rare condition of undetermined cause. Idiopathic gingival fibromatosis (IGF) is synonymously known as-Gingivomatosis, diffuse fibromas, Idiopathic fibromatosis, familial elephantiasis, and congenital familial fibromatosis. It may be localized lesion or generalized. Genetic cause has been implicated as its etiology with several genes and mutations and sometimes associated with syndromes or drugs but isolated cases are also reported and their etiology often remains unknown. This case report describes a rare case of long standing massive gingival enlargement in a systemically healthy, nonsyndromic young male involving both the arches, thereby posing a diagnostic dilemma.

Keywords: Familial, Mutations, Dilemma

INTRODUCTION

Idiopathic gingival fibromatosis is a rare hereditary condition that has no specific cause. Autosomal-dominant forms of gingival fibromatosis, are usually non syndromic, have been genetically linked to the chromosome 2p21-p222 and 5q13-q22.4 Recently, a mutation in the son of sevenless-1 (SOS-1) gene has been suggested as a possible cause of isolated (nonsyndromic) gingival fibromatosis, but no definite linkage has been established[1]. Idiopathic gingival fibromatosis (IGF) is synonymously known as-Gingivomatosis, diffuse fibromas, Idiopathic fibromatosis, familial elephantiasis and congenital familial fibromatosis.

In referral to the period of onset,the overgrowth can be classified as:pre-eruptive(<6months of age),during the deciduous dentition (from 6 months to <6 years), during the mixed dentition period (6 years–12 years) and during the permanent dentition periods, before(12years–20years)and after adolescence age 20 or later[2].The overgrowth can result in dental defects including diastema, malocclusion and delayed eruption of permanent dentition or prolonged retention of primary dentition, causing aesthetic and functional

problems such as normal swallowing pattern, difficulty in speech and mastication[3].

The types of gingival enlargement can also be classified according to etiological factors and resultant pathological changes which include inflammatory, drug induced enlargement associated with systemic diseases and conditions, neoplastic and gingival fibromatosis (GF) either idiopathic or hereditary[4].



Fig-1: Intraoral gingival enlargement photograph



Fig-2: Orthopantomogram (OPG)

CASE REPORT

A 22 year old male presented with complaints of swelling in gums since his childhood. He complained of difficulty in apposing his lips and esthetics. He had no history of any medical condition, epilepsy or any prolonged medication. Extraorally, he presented with everted lips and convex profile. An intraoral examination revealed generalized, gross, nodular enlargement of the gingivae involving the upper and lower arches, which were pink in color, and had a firm and fibrous consistency. The teeth were barely visible as they were buried deep within the enlarged gingiva. Stippling was present and there was bleeding on probing. There was no hematological abnormality. Histopathological reports revealed hyperplastic squamous papillomatous epithelium with mild lymphocytic infiltration in the subepithelium. OPG

revealed impacted 28 and osteoporosis of lamina dura. Based on above data and no underlying condition the diagnosis of idiopathic gingival hyperplasia was made.

Surgical procedure

Excision of hyperplastic gingival tissues was done using electrocautery from the buccal and palatal side of maxillary arch. Paramidline mandibulotomy was done to gain access to the lingual gingival hyperplastic tissue of mandible. Osteotomised portion was reapproximated and plating was done with two four hole plates across the osteotomised margin using 4x8mm screws each. Wound on labial side in mandibular alveolar ridge was closed with labial/buccal advancement flap. Maxillary soft tissue wound was covered with relined and fixed to teeth with interdental wiring.



Fig-3-Paramidline mandibulotomy

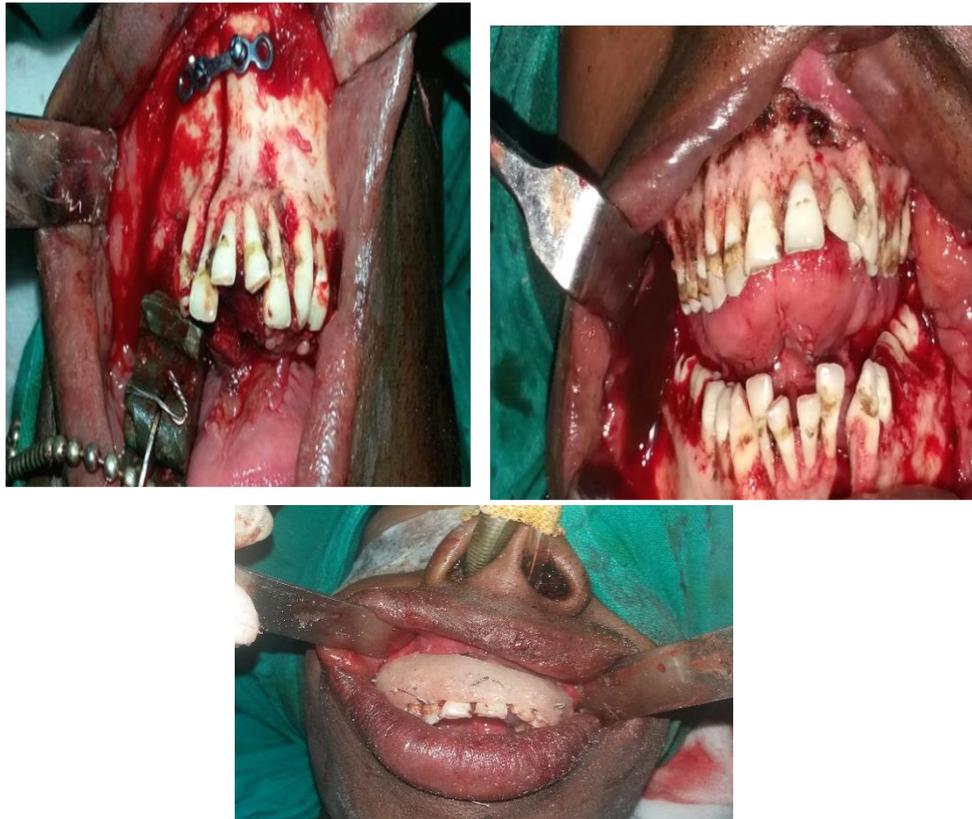


Fig – 4: Maxillary soft tissue wound was covered with relined stent and fixed to teeth with inter-dental wiring.



Fig-5: Post op photos

DISCUSSION

Gingival hyperplasia is a bizarre condition causing esthetic, functional, psychological, and masticatory disturbance of the oral cavity [1].

Idiopathic gingival fibromatosis (IGF) are grouped under separate subset of fibromatosis of unknown aetiology but, maximum genetic study is done in cases of hereditary gingival fibromatosis (HGF). The possible mechanism in both HGF and IGF may be the same. The most accepted mechanism is SOS-1-RAS-MAPK pathway the activation of which increases the expression of type IV collagen, growth factors and decrease in the expression of matrix metalloproteinase [4].

Even though recurrence cannot be predicted, the psychological and functional benefits from surgery far outweigh the risk of recurrence.

Since it is still not clear what is the triggering factor which causes the mutation and proliferation of collagen leading to enlargement. The different treatment modalities used in this case, although effective, do not necessarily prevent recurrence of the enlargement. Recurrence in treated cases of idiopathic gingival fibromatosis is attributed to the presence of inflammation and infection.

Management of gingival hyperplasia depends on the cause of the condition. In general, reinforcement of good home care oral hygiene regimens and periodic professional surgical excision of gingiva are the treatments of choice.

CONCLUSION

Although idiopathic gingival hyperplasia has been excised with electrocautery, our surgical approach of paramidline mandibulotomy is a step ahead in this arena for providing ease in surgical field.

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