IDIOPATHIC GINGIVAL FIBROMATOSIS: THE PINK ELEPHANT – A CASE REPORT

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Gingival fibromatosis is a rare disease that is characterized by slowly progressive enlargement of maxillary and mandibular gingiva. A 14 year old boy reported to the OPD with complaint of swollen gums in the upper front teeth. It was not associated with any pain and the patient gave a non contributory medical or family history and no history of any medications in the past. The clinical findings were suggestive of Idiopathic gingival fibromatosis, which was corroborated by the histopathological findings when the gingival enlargement was sent for biopsy post surgery. There has been improvement observed, with eruption of the teeth into occlusion and there has been no recurrence of the enlargement seen for almost 16 months post treatment.

Key words: Idiopathic gingival enlargement, Gingivectomy, Ledge and wedge technique, Periodontal dressing.

Gingival fibromatosis (GF) is a rare disease that is characterized by slowly progressive enlargement of maxillary and mandibular gingiva[1]. It can be categorized as- Iatrogenic, hereditary and idiopathic.

Idiopathic gingival fibromatosis (IGF) is synonymously also known as-Gingivomatosis, diffuse fibromas, Idiopathic fibromatosis, familial elephantiasis, hereditary gingival hyperplasia and congenital familial fibromatosis[2] .

It is equally common between males and females. The prevalence is 1:1, 75, 000 population. It is rarest among the three variants. Idiopathic gingival fibromatosis can be subdivided into two forms- 1) Nodular form characterized by presence of multiple tumors in the dental papilla and 2) Symmetric form resulting in the uniform enlargement of the gingiva[3]. Oral manifestations vary from minimal involvement of only the tuberosity area and buccal gingiva around the lower molars to generalized enlargement inhibiting eruption of teeth.

Case Reort

A 14 year old boy accompanied by his parents reported to our department, with the chief complaint of swollen gums and delayed eruption of teeth, that had caused him as well as his family, psychological and esthetic concern. There was no pain associated with the swelling. There was no history of epilepsy, hypertrichosis or any form of learning difficulty associated with the child. There was a negative history for long term medications for any ailments. This was an isolated case in their family according to the parents.

On intraoral examination, there was a severe diffuse gingival enlargement confined to the maxillary arch, localized between the Right central incisor and canine (tooth no. 11-13, FDI notation). The gingiva was pale pink in colour and firm in consistency (Fig 1). There was no bleeding on probing associated in that region. The intraoral periapical and occlusal views showed no abnormality in size and structure of the teeth (Fig 2). All parameters in hematological investigations were within normal limits.

Since the patient gave a non contributory medical history and no history of medications in the past, a possible etiology of gingival enlargement due to drug induced or any other systemic factors could be ruled out. As this was an isolated case of enlargement in his family, a possible diagnosis of Idiopathic

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form of gingival enlargement could have been a likely possibility.

Management

After completion of scaling and root planning and oral hygiene instructions, the patient was taken up for surgical management using external bevel gingivectomy and ledge and wedge technique of flap surgery in the concerned region under local anesthesia. The surgical area was eventually covered with periodontal dressing (Coe-Pak, GC America Inc, US) for a period of 2 weeks. The patient was given post operative instructions. The excised tissue was sent for histopathological evaluation (Fig 3).

Histopathologic Report

The epithelium showed parakeratinized squamous epithelium with long slender rete ridges. Epithelium appeared proliferated. The connective tissue showed stroma was richly fibrous with dense bundles of collagen fibers with scarce inflammatory cell infiltration (Fig 4).

The patient was observed at the end of 2nd week, the healing was uneventful (Fig 5). The patient has been followed up for a period of 16 months post surgically and has shown no recurrence of the enlargements. Also there has been a considerable improvement in the eruption of the teeth submerged due to gingival enlargement (Fig 6). Though the patient was advised for an orthodontic treatment post surgically, but the patient opted out for the treatment.

Discussion

Gingival fibromatosis can occur either as an isolated condition or be associated with other diseases and syndromes and the involvement can be localized or generalized. The different forms can be classified as[4]-

1. Isolated HGF (generalized or localized)
2. Isolated IGF (generalized or localized)
3. GF with hypertrichosis.
4. GF with hypertrichosis and mental retardation and/or epilepsy.
5. GF with mental retardation and/or epilepsy.
6. GF associated with other diseases as a part of syndrome

The various syndromes with which gingival fibromatosis can be associated are-

Zimmermann Laband syndrome, Murray Puretic Drescher syndrome, Jones syndrome, Cross syndrome, Ramon syndrome.

Isolated HGF occurs more often in younger age groups than isolated IGF. The ratio of generalized to localized type of IIGF and IGF have been reported as 15.2:1 and 1.6:1 respectively[5]. Thus isolated IGF being the rarest among the various variants.

Though the exact cause for occurrence of this form of enlargement is not clear, but one of the hypothesis state that there is a mutation in the fibroblast cells in the gingival of the patient with gingival enlargement leading to excessive production of transforming growth factor â (TGF â), which cause myofibroblast transdifferentiation , increased collagen production and decreased activity of Matrix metalloproteases(MMPs), all leading to gingival overgrowth[6].

The recurrence rate of IGF is very high after surgery and because of this patient should be followed for a considerable period of time and may require multiple surgeries. Appropriate time for removal of recurrent gingival enlargement varies. Though most of authors advocate the treatment of recurrence after eruption of all permanent teeth[7].

Conclusion

Idiopathic gingival fibromatosis is an unusual manifestation of gingival enlargement in the oral cavity. A clinical case of this lesion is presented with possible etiologic factors and its management. 16 months follow up did not show any recurrence in this case.



Fig. 1 Preoperative view showing gingival enlargement associated between tooth number 11-13 (FDI notation)



Fig. 2. Radiographic occlusal view showing normal osseous topography with tooth number 11-13.

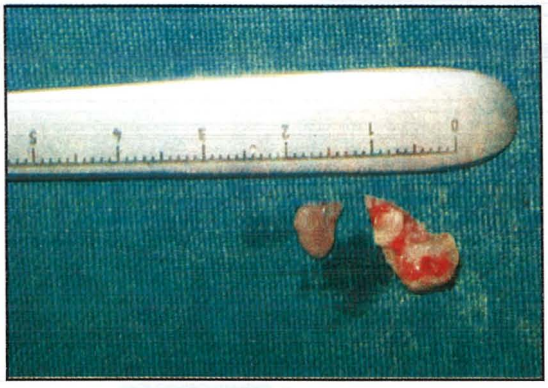


Fig. 3. Excised gingival tissue measuring 1 cm x 1 cm.

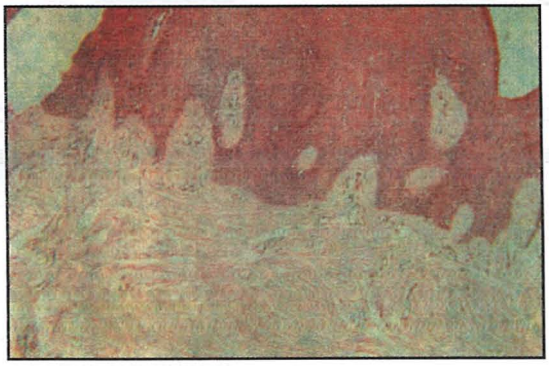


Fig. 4. Histological section showing parakeratinized squamous epithelium with dense fibrous connective tissue isrichly fibrous with dense collagen bundles.



Fig. 5. 2 weeks post operative follow up.

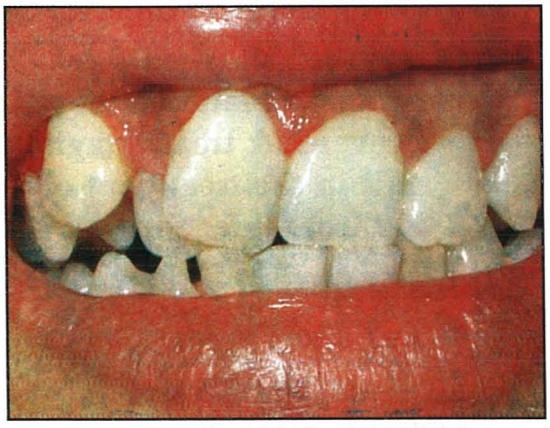
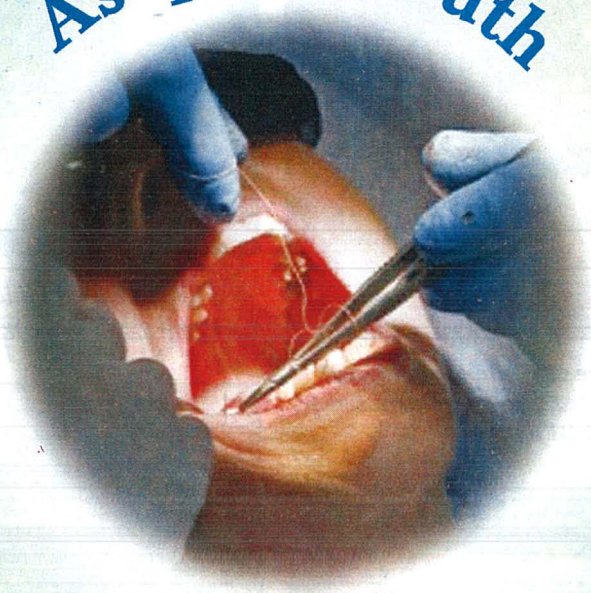


Fig. 8. 16 moths post operative follow up.

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