ISSN 2664-4177 (Print) & ISSN 2664-7931 (Online)
South Asian Research Journal of Oral and Dental Sciences
Abbreviated Key Title: South Asian Res J Oral Dent Sci

| Volume-4 | Issue-1 | Mar-Apr- 2021 | **DOI: 10.36346/sarjods.2022.v04i01.001**

Case Report

Hereditary Gingival Fibromatosis: An Unusual Case Report

Dr. Revathi Rajeshwarkar[1*], Dr. Avinash Tejasvi.M.L[2], Dr. Ch.Aparanjitha[3], Dr. B.Balaji Babu[4], Dr. N.Lakshmi Kavitha[5], Dr. Archana Pokala[6], Dr. Mounika Reddy[7]

[1]Postgraduate Student, Department of Oral Medicine and Radiology Kamineni Institute of Dental Sciences, Narketpally, Akkinepallivari Lingotam, Telangana 508254, India
[2]Professor & HOD, Department of Oral Medicine and Radiology Kamineni Institute of Dental Sciences, Narketpally, Akkinepallivari Lingotam, Telangana 508254, India
[3]Postgraduate Student Department of Oral Medicine and Radiology Kamineni Institute of Dental Sciences, Narketpally, Akkinepallivari Lingotam, Telangana 508254, India
[4]Professor Department of Oral Medicine and Radiology, Kamineni Institute of Dental Sciences, Narketpally, Akkinepallivari Lingotam, Telangana 508254, India
[5]Reader, Department of Oral Medicine and Radiology, Kamineni Institute of Dental Sciences, Narketpally, Akkinepallivari Lingotam, Telangana 508254, India
[6]Senior Lecturer, Department of Oral Medicine and Radiology, Kamineni Institute of Dental Sciences, Narketpally, Akkinepallivari Lingotam, Telangana 508254, India
[7]Senior Lecturer, Department of Oral Medicine and Radiology, Kamineni Institute of Dental Sciences, Narketpally, Akkinepallivari Lingotam, Telangana 508254, India

***Corresponding Author:** Dr. Revathi Rajeshwarkar
Postgraduate Student, Department of Oral Medicine and Radiology Kamineni Institute of Dental Sciences, Narketpally, Akkinepallivari Lingotam, Telangana 508254, India

Article History
Received: 04.02.2022
Accepted: 12.03.2022
Published: 23.03.2022

Abstract: Overgrowth of keratinized gingival tissues is a common condition and is described under a variety of names. Causes of such enlargement can be medications, hereditary, and/or local irritating factors. Hereditary gingival fibromatosis is a rare condition that can occur as an isolated disease or as part of a syndrome or chromosomal abnormality. In severe cases, the gingival enlargement may cover the crowns of teeth and cause severe functional and aesthetic concerns. Here, we present a case of an 8-year-old girl with severe enlargement of gums in the maxilla and mandible. The diagnosis was made based on clinical examination and family history.

Keywords: Hereditary Gingival Fibromatosis.

INTRODUCTION

Gingival enlargement or gingival overgrowth can be defined as an increase in the size of the gingiva, caused due to a variety of etiological factors [1]. It is caused by several factors, such as inflammation, leukaemia, drugs, and inheritance. The most common forms of gingival enlargement are induced by systemic drugs, including the antiepileptic drug- phenytoin, the immunosuppressors like cyclosporin, and nifedipine, the calcium channel-blocker with antihypertensive activity [2]. The inheritance condition in which the gingival tissue spontaneously and progressively enlarges is identified as hereditary gingival fibromatosis (HGF) [3]. Hereditary gingival fibromatosis (HGF) or Idiopathic gingival fibromatosis is a rare, benign, asymptomatic, non-haemorrhagic and non-exudative proliferative fibrous lesion of gingival tissue occurring equally among men and women, in both arches with varying intensity in individuals within the same family [4].

It also shows a generalized firm nodular enlargement with smooth to stippled surfaces and a minimal tendency to bleed. However, in some cases, the enlargement can be so firm and dense that it feels like bone on palpation [5]. Here we present a case of hereditary gingival fibromatosis of an 8-year-old female patient.

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CASE REPORT

An 8-year-old female patient reported to the Department of Oral Medicine and Radiology at Kamineni Institute of Dental Sciences, Narketpally, with a chief complaint of generalised gingival swelling in the upper and lower regions since birth. On taking a detailed medical history, it was non-contributory. Family history revealed that the patient's paternal grandmother had similar gingival enlargement but her father was unaffected.

On intraoral examination, a diffuse enlargement is seen on the gingiva in the maxillary and the mandibular anterior region extending from marginal to attached gingiva also involving interdental gingiva. The primary teeth present in this area are submerged. Based on history and clinical examination, the provisional diagnosis was given as Hereditary Gingival Fibromatosis. An orthopantomogram was advised to the patient, which showed all primary teeth to be erupted in alveolar bone and developing permanent teeth.

The patients were advised for gingivectomy and regular oral hygiene maintenance with follow up as a treatment plan.

Fig-1: Extraoral View

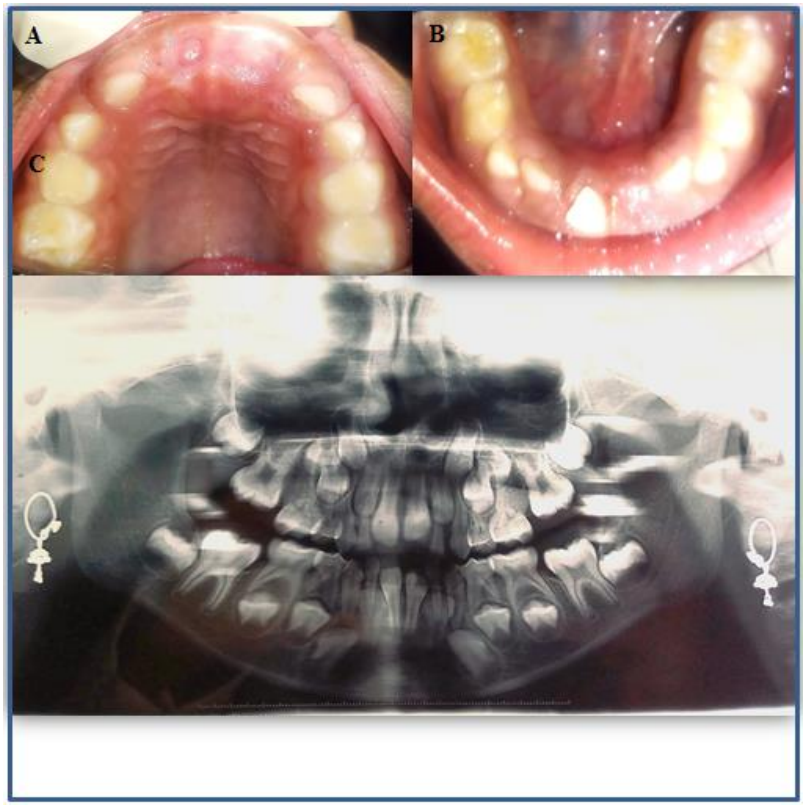

Fig-2: (A) Intraoral maxillary view (B) Intraoral mandibular view (C) Orthopantamogram showing Primary teeth and erupting permanent teeth

DISCUSSION

Gingival overgrowth varies from mild enlargement of isolated interdental papillae to segmental or uniform and marked enlargement affecting one or both of the jaws [6]. HGF is a rare disease of infancy characterized by gingival enlargement which is of normal colour and firm in consistency that is non-haemorrhagic and asymptomatic [3]. Males and females are equally affected at a phenotype frequency of 1:175,000 [7]. The gingival enlargement usually begins at the time of eruption of the permanent dentition but can develop with the eruption of the deciduous dentition and rarely is present at birth. In the present case, the enlargement persists since birth.

This clinical variability has been described even in individuals in the same family [7]. The enlargement is most intense during the eruption of both primary and permanent teeth, and minimal or non-detectable growth is observed in adults [8]. Furthermore, the presence of teeth seems to be necessary for HGF to occur because the condition disappears or recedes with the loss of the teeth.

The precise mechanism of familial gingival fibromatosis is unknown, but it appears to be confined to the fibroblasts that harbour in the gingiva. The hyperplastic response does not involve the periodontal ligament and occurs peripherally to the alveolar bone within the attached gingiva [3]. The growth is linked with the eruption of teeth as seen in the present case, and the presence of teeth may be necessary for the commencement of the process. Fibromatosis gingivae may hinder tooth eruption, mastication and oral hygiene. The most characteristic feature of HGF is the gingival enlargement of both maxillary and mandibular gingiva [9].

Although there is a large consensus on the modality of treatment to be performed in HGF patients, there are controversies among the authors concerning the exact period in which it should be accomplished. Treatment depends on the severity of enlargement and shows varying degrees of success. When the enlargement is minimal, thorough scaling of teeth and home care may be all that is required to maintain a good appearance. On the other hand, overgrowth tissues should be surgically removed. The treatment of HGF patients is conservative because extraction of all teeth and reduction of the alveolar bone have been recommended in the past. Many techniques have been used for the excision of the enlarged gingival tissues, including external or internal bevel gingivectomy in association with gingivoplasty, an apically positioned flap, electrocautery, and carbon dioxide laser [10]. In the present case, the patient was advised scaling followed by gingivectomy and was referred to the department of pedodontics.

CONCLUSION

The present case was of hereditary gingival hyperplasia (HGF). Patients with this condition require great care and motivation. Gingival enlargement is a prevalent disease in children, conferring to the clinician an important role in the correct diagnosis and treatment of affected patients.

REFERENCES

1. Mahendra, J., Rajaram, V., Muthukumar, S., & Rajendran, S. (2019). Hereditary gingival fibromatosis: report of family pedigree of three generations. *J Clin Diagn Res*, *13*(5).
2. Dongari-Bagtzoglou, A. (2004). Drug-associated gingival enlargement. *Journal of periodontology*, *75*(10), 1424-1431.
3. Coletta, R. D., & Graner, E. (2006). Hereditary gingival fibromatosis: a systematic review. *Journal of periodontology*, *77*(5), 753-764.
4. Baptista, I. P. (2002). Hereditary gingival fibromatosis: a case report. *Journal of clinical periodontology*, *29*(9), 871-874.
5. Katz, J., Guelmann, M., & Barak, S. (2002). Hereditary gingival fibromatosis with distinct dental, skeletal and developmental abnormalities. *Pediatric dentistry*, *24*(3), 253-256.
6. Sharma, S., Goyal, D., Shah, G., & Ray, A. (2012). Familial gingival fibromatosis: A rare case report. *Contemporary Clinical Dentistry*, *3*(Suppl1), S63.
7. Bozzo, L., Machado, M. A., de Almeida, O. P., Lopes, M. A., & Coletta, R. D. (2000). Hereditary gingival fibromatosis: report of three cases. *The Journal of clinical pediatric dentistry*, *25*(1), 41-46.
8. Henefer, E. P., & Kay, L. A. (1967). Congenital idiopathic gingival fibromatosis in the deciduous dentition: Report of a case. *Oral Surgery, Oral Medicine, Oral Pathology*, *24*(1), 65-70.
9. Jaju, P. P., Desai, A., Desai, R. S., & Jaju, S. P. (2009). Idiopathic gingival fibromatosis: case report and its management. *International Journal of Dentistry*, *2009*.
10. Cuestas-Carnero, R., & Bornancini, C. A. (1988). Hereditary generalized gingival fibromatosis associated with hypertrichosis: report of five cases in one family. *Journal of oral and maxillofacial surgery*, *46*(5), 415-420.