Gingival Fibromatosis of Unilateral Palatal Gingiva: A Case Report

Suparna Mondal[1], Asish Kumar Das[1], Abira Chatterjee[1], Sandhya Tamilmani[1], Vineet Nair[2]

[1]Department of Oral and Maxillofacial Surgery, Dr. R Ahmed Dental College and Hospital, Kolkata, West Bengal, India.
[2]Department of Periodontology, Dr. R Ahmed Dental College and Hospital, Kolkata, West Bengal, India.

Abstract

Gingival fibromatosis, commonly called gingival hyperplasia, is an uncommon, diverse, benign hereditary condition characterized by slowly progressive, non-hemorrhagic, fibrous enlargement of keratinized attached gingiva, and interdental papilla. This case report presents a grotesque enlargement of unilateral palatal gingiva in a 47-year-old male patient. The diagnosis was made based on case history, clinical examination, radiographic findings, and finally, incisional biopsy histopathological report. The case was treated with surgical excision under general anesthesia with a complete histopathological examination of the excised specimen. The patient was advised for oral hygiene maintenance and kept under close follow-up to rule out chances of recurrence.

Keywords: Clinical features, Gingival fibromatosis, Management, Pathogenesis.

Introduction

Gingival fibromatosis is a diverse and rare gingival condition affecting only the attached keratinized gingiva and interdental gingival papilla.[1] The adjacent periodontium and alveolar bone though connective tissue remain free of disease. It may either have a genetic predisposition or of idiopathic origin without any explainable etiology.[2] Some systemic drugs such as antiepileptics, calcium channel blockers, and immunosuppressants can lead to gingival hyperplasia in persons with genetic predisposition.[3] Those cases that are hereditary or part of syndromic manifestation show either autosomal dominant or recessive traits of genetic transmission. The complete mechanism of genetic aberration related to its manifestation is not fully understood till date. However, mutation in SOS-1 or son of sevenless-1 gene and in autosomal dominant trait chromosome 2p21-p22 and 5q13-q22 aberrations are responsible for its occurrence.[4] It has no sex predilection, equally distributed among both sexes. In this condition, gingival overgrowth often encroaches over the teeth crown causing hindrance in mastication and oral hygiene maintenance.[1] Pseudoperiodontal pocket formation and plaque accumulation can sometimes lead to chronic or acute inflammation of the gingiva.[5] Severe cases present with gross disfigurement of either one or both jaws with delayed or impacted primary or permanent or both dentitions causing functional, esthetic, and psychological issues. Syndromic or autosomal dominant variants may also present with hypertrichosis, corneal dystrophy, nail abnormalities, deafness, mental retardation, and epilepsy.[2] Clinically, the affected gingiva appears as normal or slightly paled, non-pedunculated, diffuse or nodular, non-tender, non-ulcerated, non-hemorrhagic firm flat, or bulbous enlargement of the gingiva. Histologically appears as dense, avascular highly fibrous connective tissue with varying degrees of cellularity and covered with hyperplastic para-keratinized stratified squamous epithelium with elongated rete ridges.[2]

Case Report

A 47-year-old male patient reported to the department of oral and maxillofacial surgery of Dr. R. Ahmed Dental College, Kolkata, West Bengal, with a 4-year-old slow-growing mass over the palatal aspect of the right side of the upper

Address for correspondence: Dr. Vineet Nair, Department of Periodontology, Dr R Ahmed Dental College and Hospital, Kolkata, India.
Email: drvineet_nair@yahoo.co.in

Received: Apr. 06, 2024; **Accepted:** May. 20, 2024; **Published:** May. 30, 2024

How to cite this article: Mondal S, Das AK, Chatterjee A, Tamilmani S, Nair V. Gingival Fibromatosis of Unilateral Palatal Gingiva: A Case Report. J Res Adv Dent 2024;15(5):1-4.

Access this article online

Website: www.jrad.co.in

DOI: https://doi.org/10.53064/jrad.2024.15.5.541

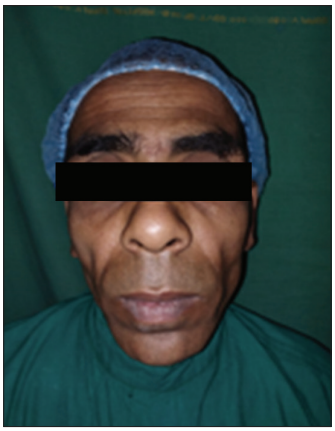

Figure 1: Extraoral profile of the patient

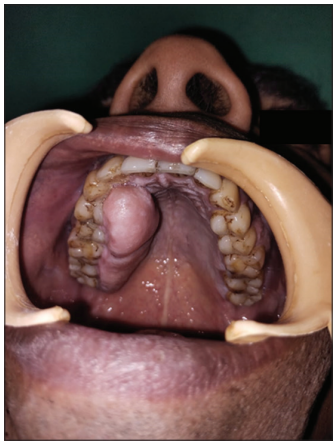

Figure 2: Intraoral profile of the patient

jaw (Figures 1 and 2). History, clinical, and radiographic examination followed by confirmatory incisional BIOPSY was done to establish a definitive diagnosis. A general examination and blood test were carried out to rule out syndromic correlation and any other systemic disease. There were no signs of bone loss in the cone beam computed tomography report (Figures 3 and 4). The case was then treated with surgical excision under general anesthesia (Figures 5-7). The specimen was sent for a complete histopathological examination (Figure 8). The final histopathological report was corroborative with features of idiopathic gingival fibromatosis.

The patient was kept under close observation with 3-day, 15-day, 1-month, and 2-month follow-up to assess healing (Figures 9 and 10). The patient was advised to maintain good oral hygiene and stop any kind of deleterious oral habit to prevent further infection or recurrence.

Discussion

Gingival fibromatosis can be classified as non-plaque-induced hereditary benign gingival enlargement. Severe form may cause gross disfigurement leading to functional, esthetic, and psychological issues. Treatment may vary from simple oral prophylaxis to multistep surgical correction depending on the gradation of disease.[6] Early detection and close follow-up are necessary to prevent functional derangement and recurrence. Based on the progression of this case, surgical excision was warranted. Other newer modalities of treatment that can be successfully carried out are electrocauterization and carbon dioxide laser ablation.

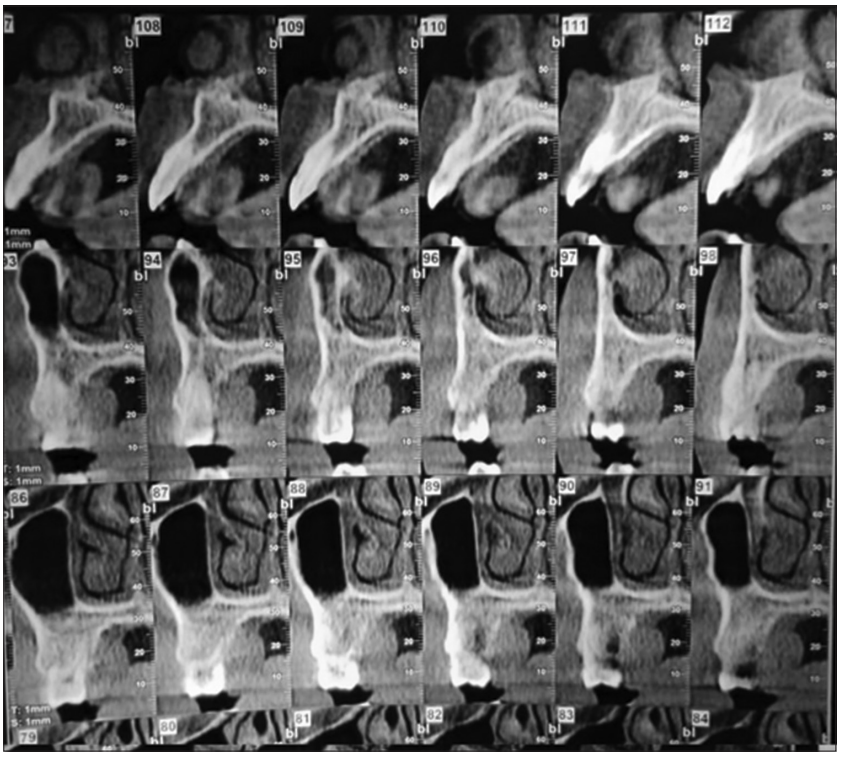

Figure 3: CBCT coronal view

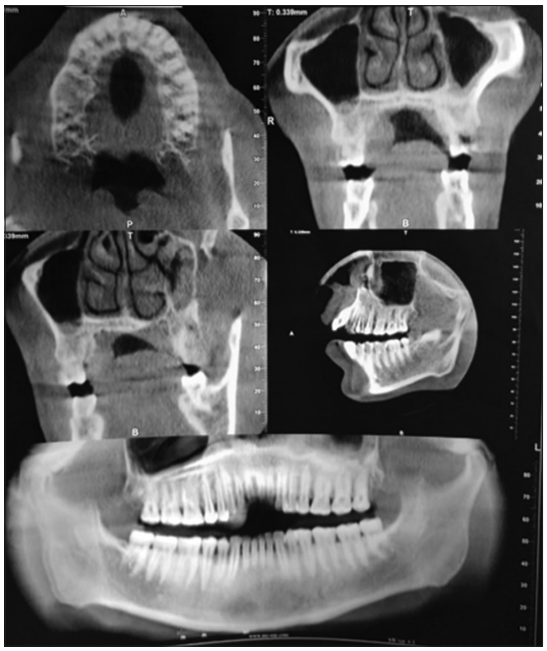

Figure 4: CBCT view showing no bone loss

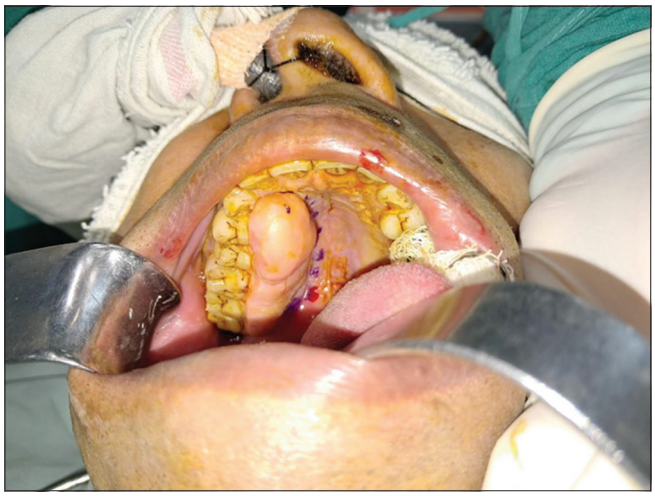

Figure 5: Surgical procedure step 1-incision marking

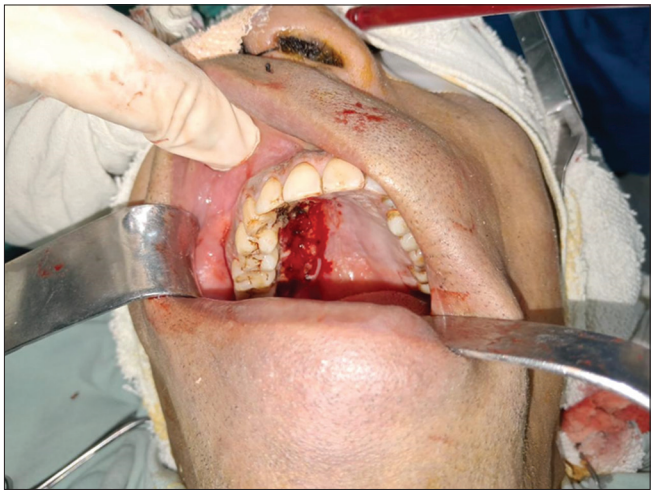

Figure 6: Surgical procedure step 2-excision of the lesion

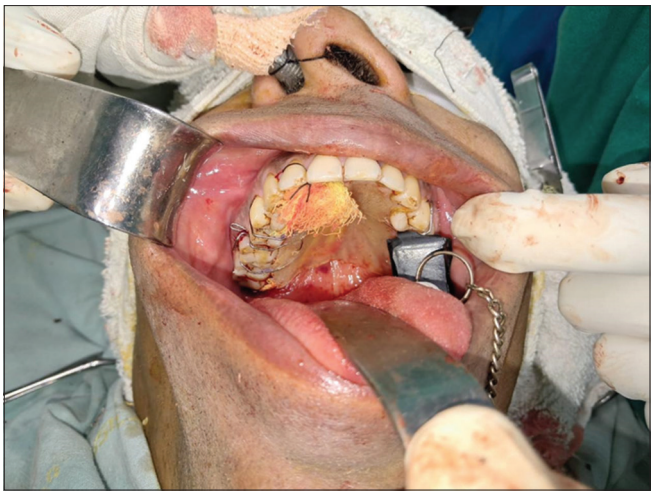

Figure 7: Surgical procedure step 3-surgical splint placement

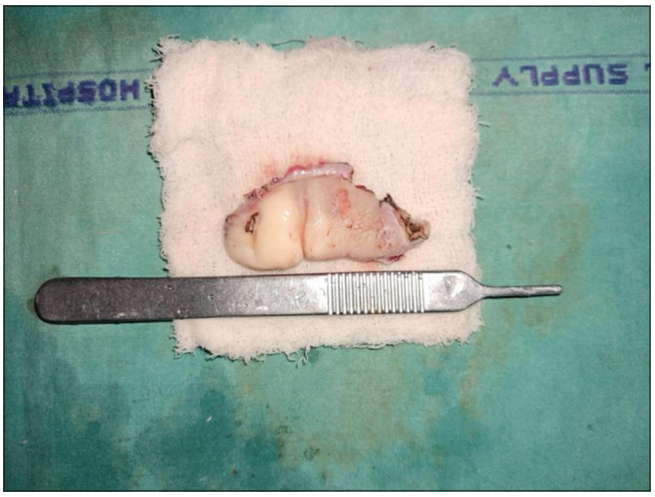

Figure 8: Specimen en mass

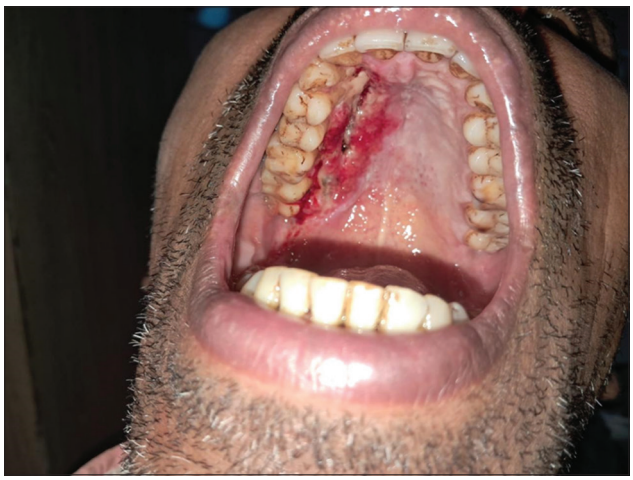

Figure 9: 15-day post-operative view

Prognosis is variable and will to some extent depend upon the genetic makeover and oral hygiene maintenance. In rare instances, chronic traumatic bite may lead to metaplastic transformation.

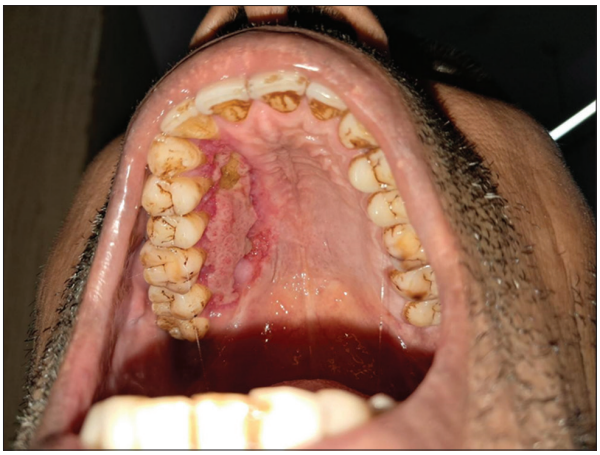

Figure 10: One-month post-operative view

Conclusion

In this case, treatment with surgical excision ensured the regain of normal stomatognathic function. Timely removal prevented the risk of nutrition and airway compromise providing functional and psychological relief to the patient.

References

1. Gawron K, Łazarz-Bartyzel K, Potempa J, Chomyszyn-Gajewska M. Gingival fibromatosis: Clinical molecular and therapeutic issues. Orphant J Rare Dis 2016;11:9.
2. Jaju PP, Desai A, Desai RS, Jaju SP. Idiopathic gingival fibromatosis, case report and its management. Int J Dent 2009;2009:153603.
3. Bokenkamp A, Bohnhorst B, Beier C, Albers N, Offner G, Brodehl J. Nifedipine aggravates cyclosporin A-induced gingival hyperplasia. Pediatr Nephrol 1994;8:181-5.
4. Majumder P, Nair V, Mukherjee M, Ghosh S, Dey SK. The autosomal recessive inheritance of hereditary gingival fibromatosis. Case Rep Dent 2013;2013:432864.
5. Chaturvedi R. Idiopathic gingival fibromatosis associated with generalised aggressive periodontitis. A case report. J Can Dent Assoc 2009;75:291-5.
6. Bozzo L, Machado MA, de Al media OP, Lopes MA, Coletta RD. Hereditary gingival fibromatosis: report of three cases. J Clin Pediatr Dent 2000 Fall;25:41-6.