

# Chronic Inflammatory Gingival Enlargement Managed by Scaling and Root Planing with Curettage: A Case Report

Abhaya Chandra Das<sup>1</sup>, Sourav Panda<sup>1</sup>, Manoj Kumar<sup>1</sup>, Rinkee Mohanty<sup>2</sup>, Rashmita Nayak<sup>2</sup>

<sup>1</sup>Reader, Department of Periodontics and Oral Implantology, Institute of Dental Sciences, Siksha 'O' Anusandhan (Deemed to be University), Bhubaneswar, Odisha, India, <sup>2</sup>Professor, Department of Periodontics and Oral Implantology, Institute of Dental Sciences, Siksha 'O' Anusandhan (Deemed to be University), Bhubaneswar, Odisha, India

## Abstract

Gingival enlargement (GE) is defined as an increase in the size of the gingiva. It is also known as gingival overgrowth. A wide variety of etiological factors play an important role in the development of GE. GE may be acute or chronic. However chronic inflammatory GE is most commonly found. Prolonged exposure of dental plaque is the most common etiological factor of chronic GE. A 23-year-old girl came to the Department of Periodontics, with a chief complaint of swelling of gums in lower front teeth regions. On clinical examination, there was grade II GE in 33 to 43 regions along with the presence of calculus in the lingual side, and poor oral hygiene too. It was planned for phase I therapy followed by phase II therapy. So scaling and root planing was performed and after 4 weeks curettage was done under infiltration local anesthesia. The subject was instructed to maintain oral hygiene. After 2 months, it was found complete resolution of GE. She was very satisfied with the result.

**Keywords:** Curettage, gingival enlargement, root planing, scaling.

## Introduction

Gingival enlargement (GE) is the most common characteristic of gingival disease.<sup>1</sup> Increase in size of gingiva is known as GE.<sup>2</sup> These GE may represent as mild enlargement of the isolated interdental papilla to segmental. It may sometimes be uniform and marked enlargements affecting one or both jaws. These GE may be due to various etiopathogenesis. It may be due to multifactorial origins such as from interaction between host and environment, or to various stimuli.<sup>3</sup> But it generally develops from plaque-induced or any

associated with systemic hormonal disturbances. It is also associated with the manifestation of leukemia, thrombocytopenia.<sup>4</sup> These GE may sometimes lead to functional disturbances such as altered speech, difficulty in mastication, and esthetic and psychological problems.<sup>2</sup>

Inflammatory GE may be divided into acute or chronic. But chronic GE is much more common. This chronic inflammatory GE is due to prolonged exposure to plaque accumulation.<sup>1,4</sup> This plaque-induced inflammatory GE is easily treated with debridement of plaque and calculus and encouragement of oral hygiene.<sup>5</sup> Sometimes it is subsided without curettage. But in case of fibrotic GE gingivectomy is needed.<sup>6</sup> This case report is presenting chronic inflammatory GE and its treatment.

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### Corresponding Author:

**Dr. Abhaya Chandra Das**

Reader, Department of Periodontics and Oral Implantology, Institute of Dental Sciences, Siksha 'O' Anusandhan (Deemed to be University), Bhubaneswar, Odisha, India

e-mail: drabhaya2011@gmail.com

**Case report:** A 23-year-old girl came to our Department of Periodontics, with a chief complaint of gum swelling in front lower region, gum bleeding and bad breath. The patient had marked the swelling and told that the swelling gingiva had increased in size since then. On clinical examination, it was found that there

was grade 2 GE which involved marginal and papillary gingiva, slight erythematous color, loss of stippling, obliterated contour, bleeding on probing in the complaint area (figure 1).<sup>7</sup> The gingiva appeared as soft and friable with a shiny and smooth surface. There was the presence of false periodontal pockets.<sup>1</sup>



**Figure 1: Preoperative view showing enlarged gingiva of mandibular teeth**

She was almost systemic healthy. She had no tobacco chewing habits. However there was the presence of sub gingival calculus, especially in the lower anterior region, which was the main culprit of enlarged gingiva. On further investigation, she maintained poor oral hygiene and poor plaque control.

**Treatment:** Scaling and root planing was done. After 4 weeks, there was some amount resolution of GE with no bleeding on probing as shown in figure 2. So the next plan was decided to curettage. Under local anesthesia (2% lignocaine hydrochloride with 1:80,000 epinephrine), curettage was performed in the anterior mandibular arch (33 to 43) with the help of Gracey curettes # 1, 2, 3, 4. The patient was advised to perform proper oral hygiene maintenance and trained the proper brushing technique (Modified Bass Technique).



**Figure 2: After 1 month of Scaling and root planing**



**Figure 3: After 2 month of curettage**

## Results

The present case was againre called after 2 months of curettage. It was found that there was a complete resolution of GE as shown in figure 3. There was no bleeding on probing, presence of stippling and scalloped gingiva, melanin pigmented pink health gingiva. She was satisfied with the final result.

## Discussion

Chronic inflammatory GE is the most common occurrence of GE which is mainly originated as a result of prolonged exposure to dental plaque.<sup>1</sup> So factors that favor the plaque accumulation and retention include poor oral hygiene, maligned teeth, loss of tooth function, any defective restoration, previous history of orthodontics treatment, mouth breathing habits, etc. Treatment of chronic inflammatory GE depend upon the understanding the underlying the causes and pathological changes.<sup>2</sup>

In the present case, there is a case of chronic inflammatory GE. Generally, these type GE is associated with prolonged exposure of dental plaque and later accumulation dental plaque. This type of GE can be managed by regular professional scaling and root planing along with good patient compliances. If the GE is not resolved, then curettageis done after 1 month. If still the GE is not resolved and gingiva becomes fibrotic, then gingivectomy or flap surgery should be performed.<sup>2,3,6</sup>

## Conclusion

Chronic inflammatory GE in our case was due to mainly poor hygiene maintenance. There was more inflammatory component in our case. So there was a drastic reduction of GE after scaling and root planing and followed by curettage. To prevent relapse of GE, it is very important to maintain oral hygiene, as well

as it needs oral hygiene education supplemented with positive motivation at the initial stage of the treatment.

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**Ethical Issues:** Approved

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### References

1. Das AC, Sahoo SK, Parihar AS, Bhardwaj SS, Babaji P, Varghese JG. Evaluation of the role of periodontal pathogens in endodontic periodontal diseases. *J Fam Med Prim Care*. 2020 Jan;9(1):239–42.
2. Jadhav T, Bhat KM, Bhat GS, Varghese JM. Chronic inflammatory gingival enlargement associated with orthodontic therapy-a case report. *J Dent Hyg JDH*. 2013 Feb;87(1):19–23.
3. Uzel MI, Kantarci A, Hong HH, Uygur C, Sheff MC, Firatli E, et al. Connective tissue growth factor in drug-induced gingival overgrowth. *J Periodontol*. 2001 Jul;72(7):921–31.
4. Carranza F, Hogan E. Gingival enlargement. In: Carranza's Clinical Periodontology. 11th ed. Philadelphia, Penn: W.B. Saunders Company; 2006. p. 373–90.
5. McLeod DE, Stoeckel D, Contreras J, Reyes E. Severe postpartum gingival enlargement. *J Periodontol*. 2009 Aug;80(8):1365–9.
6. Das AC, Panda S, Kumar M, Mohanty SK. Surgical clinical crown lengthening: A prerequisite for crown placement in fractured tooth. *Indian J Public Health Res Dev*. 2019;10(9):19–21.
7. Inglés E, Rossmann JA, Caffesse RG. New clinical index for drug-induced gingival overgrowth. *Quintessence Int Berl Ger* 1985. 1999 Jul;30(7):467-73.