



Case Report

Volume 9 Issue 4- July 2018

DOI: 10.19080/ADOH.2018.09.555766

Adv Dent & Oral Health

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Chronic Inflammatory Gingival Enlargement and Treatment: A Case Report



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Submission: June 14, 2018; Published: July 18, 2018

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Abstract

Gingival enlargement is a common feature in gingival disease. If gingival enlargement isn't treated, it may cause some aesthetic problems, plaque accumulation, gingival bleeding, and periodontitis. In this paper, inflammatory gingival enlargement and treatment was presented.

Keywords: Gingival enlargement; Periodontal treatments; Etiological factors; Plasma cell gingivitis

Introduction

Gingival enlargement is a common feature in gingival disease [1,2]. Many types of gingival enlargement can be classified in connection with etiological factors and pathological changes [3-5].

- a) Inflammatory enlargement: chronic and acute [6].
- b) Drug-induced enlargement [7-12].
- c) Gingival enlargements associated with systemic diseases:
 - i. Conditioned enlargement (pregnancy, puberty, vitamin C deficiency, plasma cell gingivitis, non-specific conditioned enlargement-granuloma pyogenicum).
 - ii. Systemic diseases causing gingival enlargement (leukemia and granulomatous diseases -Wegener's granulomatosis, sarcoidosis, etc. [13-15].
- d) Neoplastic enlargement (gingival tumors) - benign tumors and malignant tumors.
- e) False enlargement - these enlargements are not real enlargements but may appear as such because of increase in size of the underlying osseous or dental tissue. The gingival tissue usually has no clinical signs of inflammation [16,17].

Chronic inflammatory gingival enlargement originates as a slight ballooning of the interdental papilla and/or the marginal gingiva. The enlargement is generally papillary or marginal and may be localized or generalized. It progresses slowly and painlessly unless it is complicated by acute infection or trauma. Chronic inflammatory gingival enlargement is caused by prolonged exposure to dental plaque. Factors that favor plaque accumulation

and retention include poor oral hygiene, abnormal relationship of adjacent teeth, lack of tooth function, cervical cavities, improperly contoured dental restorations, food impaction, nasal obstruction, orthodontic therapy involving repositioning of the teeth, and habits such as mouth breathing and pressing the tongue against the gingival [18-20].

Overgrowth of the gingival tissue makes it more difficult for patients to maintain oral hygiene [9,21]. Surgical correction of the gingival overgrowth is still the most frequent treatment. Such treatment is only advocated when the overgrowth is severe. It includes scalpel gingivectomy, overgrowth flap surgery, electro-surgery and laser excision [22]. The aim of this paper is to present chronic inflammatory gingival enlargement and its treatment.

Case Report

A 35-year-old female patient came to Atatürk University, Department of Periodontology complaining of the gingival enlargement and bleeding. Clinical examination revealed gingival enlargement between upper left and right first incisors (Figure 1). The enlarged gingiva was edematous and susceptible to bleeding when probed. First, intensive dental plaque control procedures and scaling and root planning was applied. Extirpated tissue pattern was sent to histological analysis. The histological analysis showed collagen accumulation in the gingival tissue and the presence of chronic inflammation. After this procedure the patient received oral hygiene advice and was reviewed to check healing. One week later, there is no plaque accumulation, but gingival enlargement is continuing. A decision was made to remove the gingival enlargement by scalpel gingivectomy. Gingivectomy

procedure was applied to the affected area. The patient was reviewed to check healing. After one week reviewed the operative area irrigated (Figure 2). The patient was reviewed every three months for one year. The post-operative follow-up wasn't eventful.



Figure 1: Appearance of gingival enlargement between upper left and right first incisors.



Figure 2: Appearance of affected area after treatment.

Discussion

Gingival enlargement is a common feature in gingival disease [1,2]. It can develop from chronic or acute inflammatory changes. Inflammatory gingival enlargement is usually secondary complication of other types of enlargement, and together they are called combined gingival enlargement [23]. Treatment of gingival enlargement is based on an understanding of the cause of enlargement and the underlying pathologic changes [3-5,18].

Enlargements resulting from inflammation alone can be treated successfully with local procedures, and fastidious oral hygiene prevents recurrence. When systemic or unknown conditions are partially, or entirely responsible, surgical removal can eliminate the enlargement. Two techniques are available for this purpose: gingivectomy and flap operation [18]. Selection of the appropriate technique depends on the size of the enlargement and the character of the tissue. When the enlarged gingiva remains soft and friable even after scaling and root planning, gingivectomy is used to remove it, because a flap requires firmer tissue to adequately perform the incision and other steps in the technique [18]. In this case we performed gingivectomy technique.

Conclusion

If we want to treat gingival problems and avoid complications of periodontal therapy, it is necessary to have good knowledge of the cause of enlargement and the underlying pathologic changes and periodontal therapy techniques.

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DOI: [10.19080/ADOH.2018.09.555766](https://doi.org/10.19080/ADOH.2018.09.555766)

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