

## Two Unusual Gingival Enlargements– Case Reports of Gingival “Fibroma”

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**Abstract:** Increase in size of gingiva is a common feature of gingival disease. Many types of gingival enlargement can be classified in connection with etiological factors and pathological changes. This is clinically designated as gingival enlargement or gingival overgrowth. The terms overgrowth or enlargement are descriptive terms. Hyperplasia is a histological term used to describe the increase in a number of cells whereas hypertrophy is an overgrowth due to increased size of the cells. Two cases of gingival overgrowths are reported here. One of the lesion occurred in the mandibular anterior region, while the second case occurred in the maxillary anterior region. Radiographically, both of the cases were no evidence of bone loss. Surgical correction of the gingival overgrowth is still the most frequent treatment. An excision biopsy was performed in both cases. This article highlights the clinical presentation, diagnosis, histological features and treatment of two different cases of gingival overgrowth.

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### I. Introduction

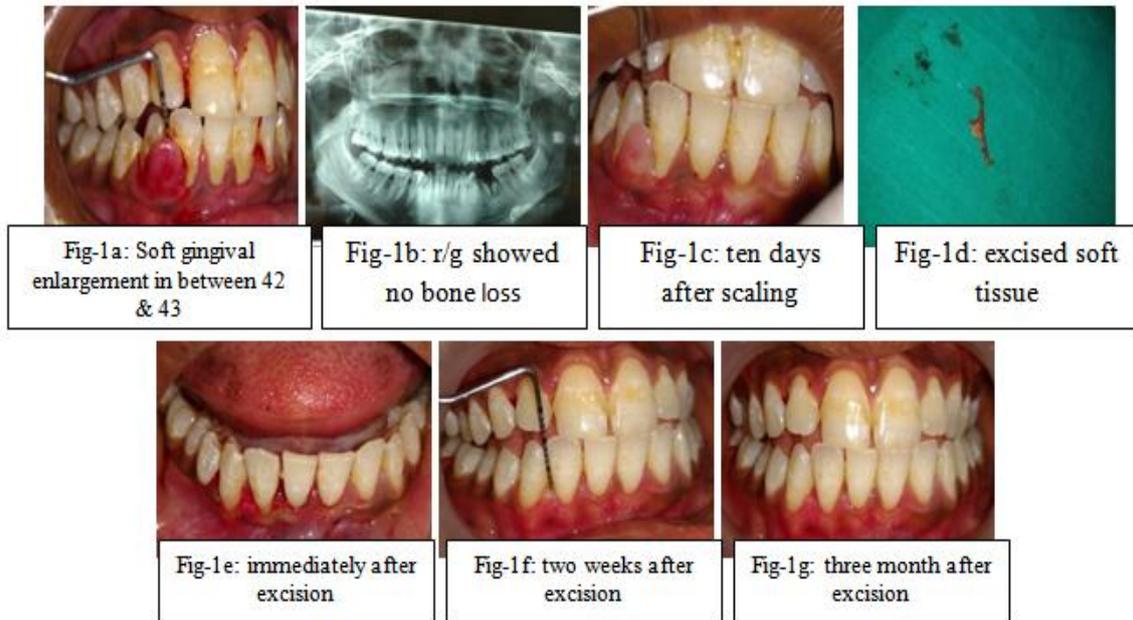
Chronic inflammatory gingival enlargement originates as a slight ballooning of the interdental papilla and/or the marginal gingiva. The enlargement is generally papillary or marginal and may be localized or generalized. It progresses slowly and painlessly unless it is complicated by acute infection or trauma. Chronic inflammatory gingival enlargement is caused by prolonged exposure to dental plaque. Gingival hyperplasia produces conditions favorable for the accumulation of plaque and materia alba by accentuating the depth of gingival sulcus and by interfering with effective hygiene measures. The secondary inflammatory changes further increase the size of the preexisting gingival hyperplasia.<sup>1</sup>

Overgrowth of the gingival tissue makes it more difficult for patients to maintain oral hygiene. Surgical correction of the gingival overgrowth is still the most frequent choice of treatment. Such treatment is only advocated when the overgrowth is severe. It includes scalpel gingivectomy or flap surgery, electro-surgery and laser excision. The aim of this paper is to present two unusual types of gingival enlargement, one in maxillary arch and another one involved the mandibular arch and its treatment.

### Case Report 1:

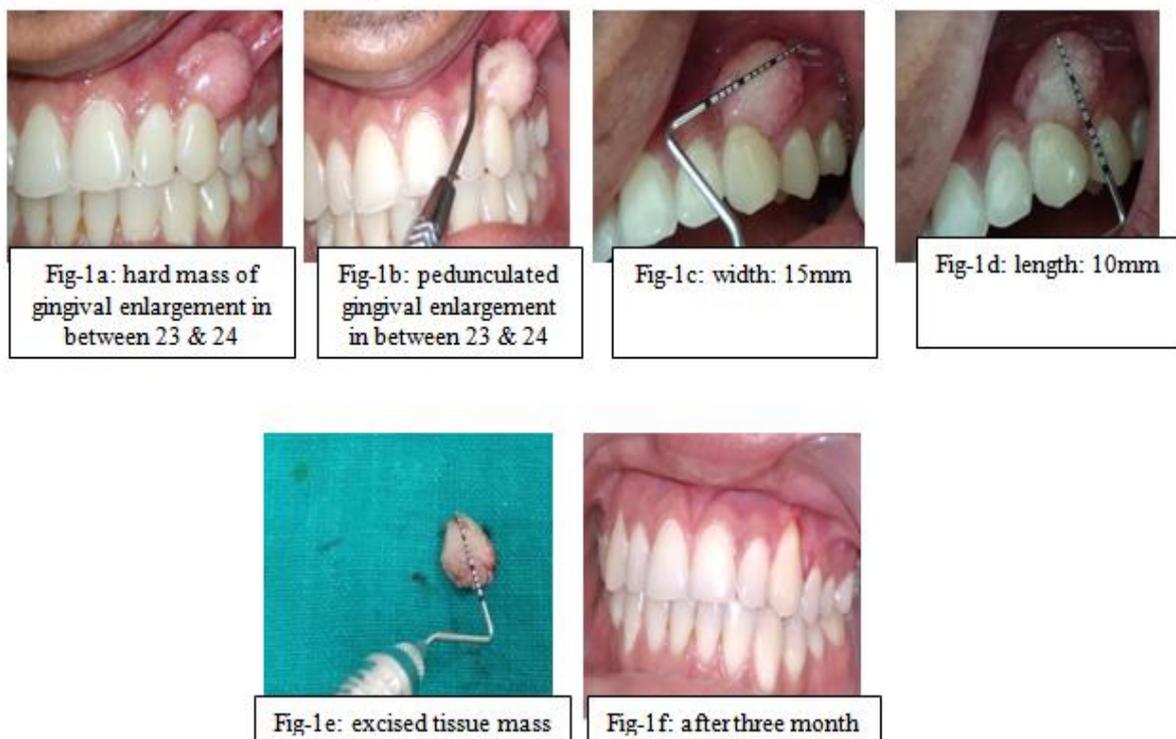
A 16-year-old female patient came to the OPD of Haldia Institute of Dental Sciences and Research, Department of Periodontology complaining of the gingival enlargement and bleeding since 5 months. On clinical examination revealed that gingival enlargement between lower right lateral incisor and canine (Figure 1a). The lesion was a reddish, soft, edematous gingival enlargement (was seen – cut it) at lower right anterior teeth region with evidence of bleeding on probing and generalized gingival inflammation (present- cut it). Radiographically there was no evidence of bone loss. First, intensive dental plaque control procedures and scaling was (“done” instead of “applied”). On first visit, probing pocket depth was 8mm (fig-1a), ten days after scaling along with adjunctive antibiotic therapy, the probing pocket depth become 6mm but the enlargement was continuing and becomes fibrotic in nature with a sessile base and without any bleeding on probing (fig-1c). Surgically the lesion was excised by gingivectomy procedure and sent for histological evaluation (fig – 1d). The patient was reviewed to check healing. The patient was recalled after two weeks to review the operative

area (Fig- 1f). The patient was recalled every three months (fig- 1g) for one year. The post-operative follow-up was uneventful.



**Case Report 2:**

A male patient aged 21 years reported with a complaint of painless swelling in the upper left anterior tooth region. The duration of the condition present was more than 2 years (fig – 1a). Patient history revealed that the lesion was of in this size since two years duration indicates that the lesion is growing slowly, the patient never felt that the associated teeth was mobile and pain under any circumstances. The condition present was causing irritation during eating, talking and smiling. On intraoral examination the firm, nodular swelling was located upper anterior region related to 23 & 24 and size was about 15.0 X 10.0 mm (fig – 1c, 1d). It had the characteristic features like pedunculated base (fig – 1b) and normal mucosa color and hard in consistency. Surgically the lesion was excised by scalpel and sent for histological evaluation (fig- 1e). The patient was advice for oral hygiene instruction and call for recheck in regular interval.



## **II. Histological Findings**

The extirpated tissue (“were” instead of “was”) sent to histological analysis for both cases. The section stained with H & E, under higher magnification the surface epithelium is showing normal maturation pattern. The central tissue core is showing excessive deposition of collagen fibers. Very less amount of vasculature is seen. Normal appearing fibroblast cell is seen. Flattening of rete ridges is noted. Peripheral portion of connective tissue is showing normal collagen fibers deposition along with mild degrees of inflammatory cells infiltration predominantly lymphocytes. The above histological findings along with clinical features are suggestive of “fibroma”.

## **III. Discussion**

Fibroma is a common submucosal response to trauma from teeth or dental prostheses and was first reported in 1846 as fibrous polyp and polypus.<sup>2,3</sup> It is universally understood that the use of the term “fibroma” is not intended in this case to convey neoplastic origin, as is the usual intent of its use for fibrous tumors in other anatomic sites. Found in 1.2% of adults, this inflammatory hyperplasia is the most common oral mucosal mass submitted for biopsy and is usually composed of Types I and III collagen. Gingival lesions are also common, although at that location they probably result from chronic infection rather than trauma.<sup>4</sup> Fibroma is a slowly progressing lesion, the growth of which is generally limited. Many cases will progress for long periods of time and it may be affected by secondary infection due to improper oral hygiene maintenance of that area due to entrapment of food particles and plaque, like first case that was initially soft and edematous due to secondary infection. After removing the irritating factors like plaque it becomes fibrotic. Fibroma is a slowly growing pink soft tissue growth, sessile (first case) or pedunculated base (second case) which (“may be soft to” instead of “was”) hard in consistency and (“may” instead of “was”) causing difficulty in maintaining the oral hygiene. Discussion and consideration of the various differential diagnoses should be done tactfully to prevent unnecessary distress to the patient and family. Zhang et al noted that cancer was included in the differential diagnosis in only 2% of cases.<sup>5</sup> Treatment consists of surgical excision, including the periosteum, and scaling of adjacent teeth. Close postoperative follow-up is required because of the growth potential of incompletely removed lesions and the 8%–20% recurrence rate.

The reactive lesions are common in the oral cavity because of the frequency with which the tissues are injured. They can be classified into focal fibrous hyperplasia, peripheral ossifying fibroma, pyogenic granuloma, and peripheral giant cell granuloma. Localized overgrowths of soft tissues are of frequent occurrence in the oral mucosa. Several authors believed that many of these lesions are true fibromas, whereas Cooke 1956 believed that, the cause being local irritation as they are reactive in nature.<sup>8,9</sup>

## **IV. Conclusion**

Fibroma is a slow-growing, rounded, well-demarcated, variably sized benign lesion attached to the different region of oral cavity like tongue, gingiva and buccal mucosa. The surface is smooth, and the color is slightly paler than the adjacent healthy tissue. It is usually characterized by a painless growth accumulated over a period of months or years. Treatment usually requires total excision and recurrence is rare. It is usually managed by complete surgical excision. The prognosis is excellent once the source of irritation is completely eliminated.

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