

CASE REPORT

Meticulous management of localized inflammatory gingival enlargement associated with Generalized Chronic Severe Periodontitis – A Case report

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ABSTRACT:

Gingival enlargement may be caused by gingival inflammation, fibrous overgrowth or both. The consequences of untreated gingival enlargement produces clinical symptoms such as pain, tenderness, functional problem, bleeding and aesthetic appearance which ultimately lead to attachment loss and tooth morbidity. It may be rarely associated with generalized chronic periodontitis and presents a complex clinical situation. This case report describes the meticulous management of localized inflammatory gingival enlargement associated with generalized chronic severe periodontitis.

Key word- Gingival enlargement, generalized chronic periodontitis, diagnosis, treatment plan.

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INTRODUCTION

Gingival enlargement is a common feature of gingival disease, characterized by an overgrowth of gingiva.^[1] This term has replaced the terms gingival hyperplasia and gingival hypertrophy as these present histological diagnosis and do not accurately describe the varied pathological processes going within the tissues.^[2] Classification of gingival enlargement can be done according to the - etiologic factors and pathological changes, according to location and distribution and the degree of enlargement.^[1] The most common enlargement is plaque induced that is associated more with the interdental papillae and may be localized and generalized.^[3] Also hormonal changes, (puberty and pregnancy), and systemic medications have increased effects on such gingival enlargement^[4] and may lead to persistence of periodontal pocket.^[3] Chronic Periodontitis is the most common form of periodontitis.^[5] Chronic periodontitis has a slow to moderate rate of disease progression, but periods of more rapid destruction may be observed. Various factors have been identified which increases the risk of developing chronic periodontitis.^[6] Chronic periodontitis with gingival enlargement present a complex clinical situation as presence of gingival enlargement may prevent adequate plaque control, thereby accentuating the rate of

progression of chronic periodontitis. The aim of periodontal therapies in such patients, should be to half disease progression so as to preserve the existing periodontal tissue with an effort to reconstruct the lost periodontal support. An accurate diagnosis in such cases is often first step towards the development of a well-designed and appropriate treatment plan. An incorrect diagnosis often leads to an ill-conceived treatment approach that ultimately fails to resolve the periodontal problem in such cases.^[7]

We report here, a case of gingival enlargement which is associated with the generalized chronic severe periodontitis and its meticulous management.

CASE REPORT

A 32 year old female patient presented to the Department of Periodontics with a chief complaint of localized gingival enlargement in mandibular anterior teeth region since 2 months.(Figure 1)

She had occasional bleeding from gums and trouble in mastication and speech. Clinical examination showed localized overgrowth of gingiva which had size of 2cm x 4 cm. The gingiva was bluish red in color with soft and edematous consistency. Oral hygiene was poor. Patient had no relevant medical history.

Important clinical finding included grade I mobility on 41,42,31 with generalized deep periodontal pocket depths in the range of 8-9 mm and generalized angular bone loss was observed radiographically.

Treatment plan

Treatment plan included phase I periodontal therapy followed by reconstructive surgery. Prior to phase I therapy detailed dental and medical history was taken. Periodontal pockets and attachment loss levels were measured. Thickness of keratinized gingiva was measured by Vernier caliper (Table 1) and direct bone level was measured by using a transgingival probing method and then transferred the marking of bone level to the cast (Figure 2) for the appropriate surgical approach. Treatment plan included phase I therapy in which supra gingival scaling and sub gingival scaling was done followed by phase II periodontal therapy, which included gingivectomy with internal bevel incision and complete debridement was done.(Figure 3 and 4) An intrabony defect was observed distal to right and left canine which was filled with the bone graft and suturing was done. Periodontal pack was then given in that area. The excised lesion was sent for histological evaluation. Antibiotics and analgesics were prescribed for 5 days. After one month of recall, the patient presented with uneventful healing. The other complaint of the patient was bulbous gingiva in the maxillary anterior region as an aesthetic concern for which a second surgical procedure was performed in which bone recontouring procedure was done under local anesthesia in the maxillary anterior region.(Figure 5)



Figure 3: Showing raised the undisplaced flap



Figure 4: Showing bone graft filled in defect area .



Figure 5: Recontouring procedure done on maxillary anterior tooth



Figure 1: Showing localized gingival enlargement



Figure 6: Showing post-op after 3 month.



Figure 2: Marking of bone level on the cast.

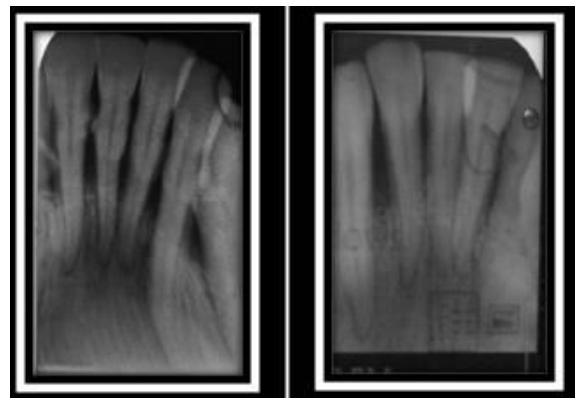


Figure 7: Intraoral panoramic radiograph 21 ,31 region pre and post treatment

Table 1: showing thickness of gingiva in maxillary tooth region.

Tooth No.	24	23	22	21	11	12	13	14
Gingival Thickness	0.63	0.69	1.09	0.79	1.79	1.19	1.03	1.02

DISCUSSION

The first challenge in the treatment of a periodontal disease is a well-timed and appropriate diagnosis. Disease diagnosis and treatment in its earliest stages will prevent future complications. Generally, patients ignore painless ailments. Thus, it is not uncommon for the disease to go undiagnosed until progression has reached moderate to advanced degrees of severity like bone loss or tooth mobility. The second challenge is an inappropriate diagnosis and ignorance of the contributing factors that lead to the progression of the disease. The third challenge in the treatment of periodontal disease involves the long term maintenance of the periodontium.^[8]

Although gingival enlargement is a common finding in clinical practice, but gingival enlargement associated with chronic generalized severe periodontitis is a complex condition. The reason for this complexity is due to the fact that gingival enlargement results in more accumulation of plaque which ultimately exaggerate the clinical attachment loss and there will be increased rate of progression of periodontal disease.^[3]

In our report, the patient had come to us with the chief complaint of gingival enlargement, resulting in unaesthetic appearance. On clinical observation there was attachment loss and radiographic evidence of angular bone loss, therefore, keeping in view her aesthetic concern, we preserved the width of attached gingiva and thus resolving both the soft tissue as well as hard tissue problems without undue bone exposure and it is important to determine level of remaining bone for planning of forthcoming surgery, treatment response and better prognosis. After 3 months we observed gain in attachment levels, improved functional aspects and better esthetics. (Figure 6 and 7) Previous studies have also reported results similar to our study. ^[3, 8]

In cases of periodontitis with gingival enlargement, undisplaced flap with internal bevel incision has not only shown acceptable results, but has also improved the prognosis of periodontitis. This has been proved by some other studies also.^[1,3,11]

In this case, all teeth were treated conservatively and favorable clinical improvements were seen, so the hopeless prognosis was turned into a maintainable condition.

CONCLUSION

It may be concluded that in cases of severe periodontitis associated with enlargements, undisplaced flap with internal bevel incision has shown promising results. It is suggested that in such cases it is better to preserve the remaining healthy tissue even if it requires slight compromise in the aesthetic aspect.

REFERENCES:-

1. Agrawal AA. Gingival enlargements: Differential diagnosis and review of literature. *World J Clin Cases* 2015;3:779-788.
2. Beaumont J, Chesterman J, Kellett M, Durey K. Gingival overgrowth: Part 1: aetiology and clinical diagnosis. *Br Dent J* 2017;222:85-91.
3. Savage NW, Daly CG. Gingival enlargements and localized gingival overgrowth. *Aust Dent J* 2010;55:55-60.
4. Robin A, Seymour. Effects of medications on the periodontal tissues in health and disease. *Periodontol* 2000;40:120-129.
5. Flemmig TF. Periodontitis. *Ann periodontol* 1999;4:32-37.
6. Papapanou PN. Risk assessments in the diagnosis and treatment of periodontal disease. *J Dent Educ* 1998;62:822-39.
7. Gary C. Periodontal diagnosis and classification of periodontal disease. *Periodontal* 2000;34:9-21.
8. Shaddox LM, Walker CB. Treating chronic periodontitis: current status, challenges, and future directions. *Clin Cosmet Investig Dent* 2010;2:79-91.
9. John H, Nesson. Diagnosis and treatment planning in periodontal disease. *J Periodontol* 1963;3:524-532.
10. Jadhav T, Mahilangabhat K, Subhrayabhat G, John M. Chronic inflammatory gingival enlargement associated with orthodontic therapy. *J dent hyg* 2013;87:19-23.
11. DeVore CH, Beck FM, Horton JE. Retained "hopeless" teeth. Effects on the proximal periodontium of adjacent teeth. *J Periodontol* 1988;59:647-5.

Key message-

In case of generalized chronic periodontitis with localized gingival overgrowth, undisplaced flap with internal bevel incision has given better results esthetically and structurally. Thus with this approach there is improvement in periodontal health along with good esthetics.