

AGGRESSIVE PERIODONTITIS: 18 MONTHS FOLLOW UP - A CASE REPORT

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Abstract

The diagnosis "Aggressive Periodontitis", defined by the International Workshop for Classification of Periodontal Diseases and Conditions in 1999, refers to the multifactorial, severe, and rapidly progressive form of Periodontitis, which primarily – but not exclusively – affects younger patients. Aggressive periodontitis have localized and generalized forms. It is currently believed that combination of bacteriologic, immunologic and hereditary factors are of major importance in the etiology of this disease. The case was of a 20 year old female and her clinical and radiographic findings were typical for generalized Aggressive Periodontitis. Treatment consisted of thorough scaling and root planing along with administration of tetracycline 250 mg every six hours for three weeks, followed by surgical intervention.

Keywords: Aggressive periodontitis, multifactorial disease, treatment

Introduction

Aggressive Periodontitis is an uncommon condition characterized by severe loss of attachment and destruction of alveolar bone around one or more permanent teeth in otherwise healthy adolescent. The disease has a predilection for first molars and incisors and when limited to these teeth is termed localized Aggressive periodontitis. A generalized form of Aggressive periodontitis has been described in which there is severe tissue destruction around many teeth, which becomes apparent about the time of puberty, usually between the ages of 10 and 15. The disease progresses rapidly at the mesial or distal surfaces of one or more first permanent molars, and in most instances there is additional involvement of one or more incisors.^[1] As the disease progresses, the affected teeth may become increasingly mobile, with labial movement and spacing of incisors. Bleeding on probing of the periodontal pockets is also evident, reflecting ulceration of the crevicular epithelium. Closed curettage and surgical curettage in conjunction with scaling and root planing and adjunctive antibiotic treatment is beneficial for its treatment.^[2]

CASE REPORT:

A 20 year old female patient reported to the department of Periodontology, D J Dental College and Hospital, Meerut, U.P with chief complaint of

bleeding from gums (fig 1). The patient's medical history was unremarkable. On examination, the clinical features were typical of Aggressive periodontitis in its most active stage of progression. Both the attached and marginal gingival were fiery red and, acutely inflamed, with exudation of pus. The patient had no carious lesions or any restorations. The radiographs revealed severe generalized loss of the alveolar bone with arc shaped bone loss in mandibular molar region (fig 9) and vertical bone loss in many sites including incisors (fig 4). The mean pocket depth was about 7mm. Based on the history, clinical and radiographic examinations, case was diagnosed as Generalized Aggressive Periodontitis.

The treatment consisted of-

- I. Scaling and root planing.
- II. Systemic administration of tetracycline hydrochloride 250mg four times daily for 14 days.
- III. Patient was recalled 6 weeks after phase-I therapy and at reevaluation, probing pocket depth was found to be deepest in most of the sites with measurement of 5- 7mm.

Surgical intervention was deemed necessary and open flap debridement.(fig 5) with regeneration using Bone graft (BG)-DFDBA with GTR membrane (Periocol) was performed in all the quadrants.(fig10).

Patient's lateral incisor of second quadrant (22) was grade III mobile with severe bone loss. As per

patient's priority trial was done to save the tooth. Endodontic treatment with ligature wire splinting of maxillary arch was done followed by open flap debridement (OFD) of all quadrants in subsequent visit. DFDBA bone graft was also placed in vertical defects (fig 5).

All the quadrants with open flap debridement were completed in 1 month. Recall visit at one month showed stable and good results with patient's full satisfaction.

Following the surgery, patient was recalled once a month for 9 months. At 18 months recall visit, the probing pocket depth was reduced to 3-4 mm (fig 6, 11) from a pre-operative measurement of 7 mm. Radiographically a defect fill of approximately 60-70% was achieved (fig 12). Also the mobility of the lateral incisor of second quadrant (22) was reduced significantly with significant bone formation (fig 7).



Fig. 1: (pre-op- Aggressive periodontitis)

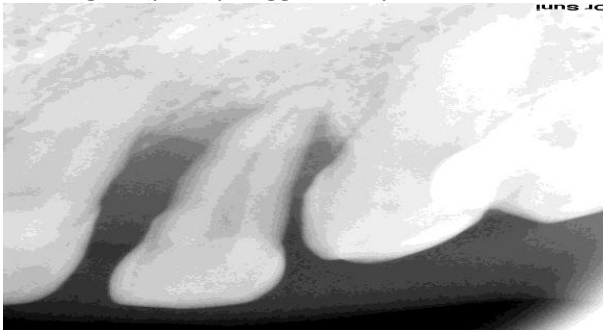


Fig. 3: (IOPA showing bone loss)



Fig. 4: (Probing depth amount of destruction)

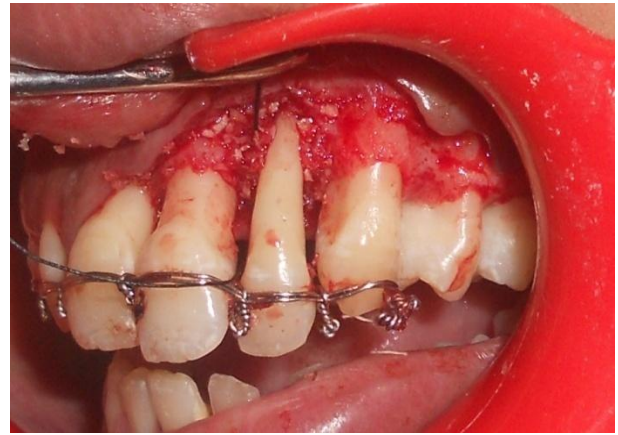


Fig. 5: (DFDBA bone graft)



Fig. 6: (18 months reduced post op probing depth)



Fig. 7: (18 months IOPA)



Fig. 8: (pre-op probing depth in vertical defect in 46)



Fig. 9: (Pre-op IOPA showing arc- shaped defect)



Fig. 10: (DFDBA bone graft done i.r.t 46)



Fig. 11: (18 months post-op reduced probing depth)

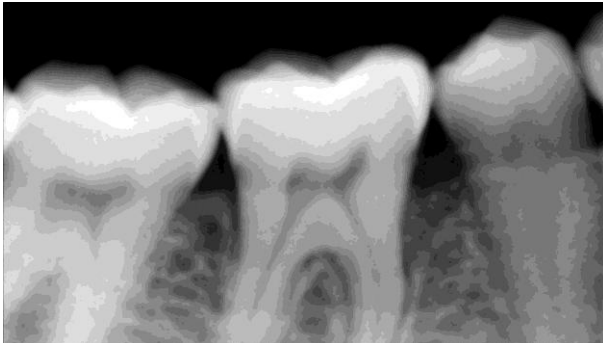


Fig. 12: (18 months post-op IOPA showing completely resolution of arc-shaped defect)

DISCUSSION:

The most common form of periodontal disease is an inflammatory hyperplastic gingivitis associated with

poor oral hygiene, plaque and supragingival calculus. Untreated, the disease usually progresses to Periodontitis. In the vast majority of cases of aggressive periodontitis, however, one is left with the clinical impression that the amount of periodontal destruction observed is not commensurate with the amount of local irritants which can be found.^[2,3] Vertical loss of alveolar bone about the first molars and one or more incisor teeth in an otherwise healthy adolescent is a diagnostic sign of aggressive periodontitis. The pattern of bone loss is usually described as an arch-shaped loss of alveolar bone extending from the distal surface of the second bicuspid to the mesial surface of the second molar. The bone loss in the posterior regions occurs bilaterally and the right and left sides are generally mirror images of each other. The degree and the shape of the bone loss are generally dependent upon whether the lesion is diagnosed in an early or advanced stage. As the terminal stage of the disease, the bone loss is no longer vertical but it assumes a horizontal shape.^[3,4] In the case presented, all these clinical and radiographic signs were present. Antibiotic therapy with scaling and root planing as well as surgery was performed and the therapy was successful to reveal good results with significant attachment gain was found during one and half year follow up and is still under follow up period.

CONCLUSION:

It was concluded that with the proper diagnosis and treatment, Aggressive Periodontitis can be treated successfully with significant attachment gain and bone formation.

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