

# International Journal of Research in Health and Allied Sciences

Journal home page: [www.ijrhas.com](http://www.ijrhas.com)

Official Publication of "Society for Scientific Research and Studies" [Regd.]

ISSN: 2455-7803

## Case Report

### Periodontitis stage 2 grade B

<sup>1</sup>Dr. Tanya Chopra, <sup>2</sup>Dr. Rahul Sathu, <sup>3</sup>Dr. Mehak Zahoor

<sup>1-3</sup>PG student, Department of Periodontology and Oral Implantology, Swami Devi Dyal Hospital and Dental College, Barwala, Haryana, India

#### **ABSTRACT:**

Chronic periodontitis is a multifactorial infectious disease occurs as a result of challenge between the host response and specific periodontal pathogens characterized by the manifestation of a slow irreversible damage of periodontal supporting tissue loss in a period of time. It has been shown that deep periodontal pockets as a result of alveolar bone destruction have been associated with the increase in the number of tooth loss. In the present paper, we presented the case report of management of a 21-year-old female patient with presence of stage 2, grade B periodontitis.

**Key words:** Periodontitis, Surgical, Flap

Received: 15 February, 2022

Accepted: 17 March, 2022

**Corresponding Author:** Dr. Tanya Chopra, PG student, Department of Periodontology and Oral Implantology, Swami Devi Dyal Hospital and Dental College, Barwala, Haryana, India

**This article may be cited as:** Chopra T, Sathu R, Zahoor M. Periodontitis stage 2 grade B. Int J Res Health Allied Sci 2023; 9(2):92-94.

#### **INTRODUCTION**

Periodontitis is characterized by microbially-associated, host-mediated inflammation that results in loss of periodontal attachment. The pathophysiology of the disease has been characterized in its key molecular pathways, and ultimately leads to activation of host-derived proteinases that enable loss of marginal periodontal ligament fibers, apical migration of the junctional epithelium, and allows apical spread of the bacterial biofilm along the root surface.<sup>1-3</sup> The bacterial biofilm formation initiates gingival inflammation; however, periodontitis initiation and progression depend on dysbiotic ecological changes in the microbiome in response to nutrients from gingival inflammatory and tissue breakdown products that enrich some species and anti-bacterial mechanisms that attempt to contain the microbial challenge within the gingival sulcus area once inflammation has initiated. Current evidence supports multifactorial disease influences, such as smoking, on multiple immunoinflammatory responses that make the dysbiotic microbiome changes more likely for some patients than others and likely influence severity of disease for such individuals.<sup>4-6</sup> In the present paper, we presented the case report of management of a 21-

year-old female patient with presence of stage 2, grade B periodontitis.

#### **CASE REPORT**

A 21-year-old female patient with presence of stage 2, grade B periodontitis was treated. The periodontal family history of the patient did not reveal any severe periodontal destruction or early tooth loss. The patient did not receive any periodontal treatment previously. The oral examination revealed severe gingival inflammation, suppuration, multiple periodontal abscesses, halitosis, severe teeth mobility, and radiographically established widespread horizontal/vertical severe bone loss. The treatment consisted of initial periodontal therapy (IPT), endodontic care for decayed teeth, regenerative periodontal surgery, and reconstructive operations. The patient got IPT, which included advice on maintaining good oral hygiene and scaling and root planing done with both manual and ultrasonic tools. Free gingival grafts (FGG) were positioned at the areas with insufficient keratinized tissue following IPT before the regenerative procedures. The flap operations were carried out. The patient received 0.12% chlorhexidine + benzydamine hydrochloride mouthwash twice daily

for 4 weeks, amoxicillin + potassium clavulanate twice daily for 7 days, naproxen sodium twice daily for 7 days, and other postoperative treatment. For the first four weeks following surgery, mechanical teeth cleaning was prohibited in the surgical area. After the surgery, the sutures were removed 14 days later. The patient was put on a rigid reminder schedule. This tooth was attempted to be preserved without the distal root being removed since the patient was very motivated, insisted on keeping the entire dentition, and was quite skilled at conducting oral hygiene routines. Both surgical sessions had uneventful postoperative recovery.



**Figure 1: Preoperative**



**Figure 2: After scaling and root planning**



**Figure 3: OPG**



**Figure 4: Postoperative**

## DISCUSSION

Generalized periodontitis was first introduced as diffuse atrophy of the alveolar bone in 1923 by Gottlieb and finally named as aggressive periodontitis in 1999. It is a rare and severe periodontal disease characterized by rapid periodontal destruction with loss of attachment in healthy persons. Therefore, initial periodontal treatment and additional periodontal surgery should be performed if required for generalized periodontitis. Although it is considered

that generalized periodontitis is a multifactorial disease including genetic and immunologic factors, pathogenic oral bacteria of *Aggregatibacter actinomycetemcomitans* and *Porphyromonas gingivalis* are strongly related to severity of this disease. The goal of the treatment is to create proper oral environment which hampers the further colonization of periodontal pathogens. The consensus opinion is that the mechanical cleaning of the root surfaces (scaling and root planning) combined with meticulous oral hygiene is the proper treatment of the periodontitis.<sup>7-9</sup> In the present paper, we presented the case report of management of a 21-year-old female patient with presence of stage 2, grade B periodontitis. A 21-year-old female patient with presence of stage 2, grade B periodontitis was treated. The periodontal family history of the patient did not reveal any severe periodontal destruction or early tooth loss. After the surgery, the sutures were removed 14 days later. The patient was put on a rigid reminder schedule. This tooth was attempted to be preserved without the distal root being removed since the patient was very motivated, insisted on keeping the entire dentition, and was quite skilled at conducting oral hygiene routines. Both surgical sessions had uneventful postoperative recovery. The clinical difference between chronic and aggressive periodontitis especially in generalized forms is not clear.<sup>7</sup> The extent and amount of clinical inflammation in generalized aggressive periodontitis appear to be similar to that observed in chronic periodontitis. At that point, clear diagnostic distinction can be made according to age of onset and patients' family history. Recently, continuous multilevel risk assessment-based prognostication systems were proposed. In the light of these evidences, it seems possible to retain a tooth with negative prognosis in a well-maintained cooperative patient. The importance of patient selection, clinicians' experience and skill, the scientific evidence, treatment plan, a cost/benefit analysis and a strict periodontal supportive care program must be underlined as the keys for the success of periodontal treatment approaches. Although periodontists are recognized as more skilled in predicting tooth prognosis, we must remember that treatment protocol does not work in any case if the patient compliance does not exist.<sup>7-9</sup> Agrali OB et al described the periodontal treatment of a 42-year-old male patient with generalized severe chronic periodontitis. The devital teeth were endodontically treated, and free gingival grafts were placed at the inadequate keratinized tissue zones before regenerative surgery. Following the surgical treatment using enamel matrix derivatives and xenogenic bone graft combination, the patient was put on a strict recall program. After 12 months, favorable clinical and radiographical improvements were obtained. The 7-year maintenance of the present case with several initially hopeless teeth has been shown and discussed in their report.<sup>10</sup>

## CONCLUSION

Optimum oral hygiene level as well as the positive cooperation of the patient enhanced the success of periodontal treatment results even in extremely severe periodontal destruction.

## REFERENCES

1. Proceedings of the World Workshop in Clinical Periodontics. Princeton, New Jersey, July 23–27, 1989. In: Nevins M, Becker W, Kornman K, eds. Chicago: American Academy of Periodontology; 1989.
2. Proceedings of the 1st European Workshop on Periodontics, 1993. London: Quintessence; 1994.
3. Socransky SS, Haffajee AD, Cugini MA, Smith C. Microbial complexes in subgingival plaque. *J Clin Periodontol.* 1998;25:134–144.
4. Papanou PN. Periodontal diseases: epidemiology. *Ann Periodontol.* 1996;1:1–36.
5. Michalowicz BS, Aeppli DP, Kuba RK, et al. A twin study of genetic variation in proportional radiographic alveolar bone height. *J Dent Res.* 1991;70:1431–1435.
6. Michalowicz BS, Diehl SR, Gunsolley JC, et al. Evidence of a substantial genetic basis for risk of adult periodontitis. *J Periodontol.* 2000;71:1699–1707.
7. Hirschfeld L, Wasserman B. A long term survey of tooth loss in 600 treated periodontal patients. *J Periodontol* 1978; 49: 225–23
8. Chace R Sr, Low SB. Survival characteristics of periodontally involved teeth. A 40 year study. *J Periodontol* 1993; 64: 701–705
9. McGuire MK, Nunn ME. Prognosis versus actual outcome III. The effectiveness of clinical parameters in accurately predicting tooth survival. *J Periodontol* 1996; 67:666–674
10. Agrali OB, Kuru BE. Periodontal treatment in a generalized severe chronic periodontitis patient: A case report with 7-year follow-up. *Eur J Dent.* 2015 Apr-Jun;9(2):288-292.