

Case Report

Role of Periodontist in Orthodontic Treatment- A Case Report

Dr Shweta Singh¹, Dr Vanshita Nalwa², Dr Mamta Rani³

^{1,2}Ex-Post Graduate Student, Department of Periodontics, Post Graduate Institute of Dental Sciences, Rohtak

³Ex-Post Graduate Student, Department of Orthodontics, Postgraduate Institute of Medical Education and Research, Chandigarh.

Corresponding Author: Dr Shweta Singh

ABSTRACT

A combination of periodontal and orthodontic treatment is often needed. In this report, a 16-year-old, systemically healthy, non-smoking female undergoing orthodontic treatment presented with the fibrous band of tissue between her teeth which were needed to be closely approximated. She was treated with interdisciplinary approach of orthodontic and periodontal intervention. Follow up post treatment confirmed better treatment planning as compared to single disciplinary approach.

Keywords: Fibrous gingival tissue, Interdisciplinary approach.

INTRODUCTION

A healthy 16-year-old, female patient was referred by an orthodontist for the management of hindering fibrous gingival tissues in the department of periodontics and oral implantology, Post Graduate Institute of Dental Sciences, Rohtak. The consulting orthodontist reported no progression in space closure despite application of required orthodontic force for last two months.

Multiple factors contribute to the multidisciplinary approach for patients by a qualified dental team. One of the factors is presence of fibrous band of gingival tissue at the extraction site which hinders the orthodontic movement of neighboring teeth. Enlargement of interdental papillae and accumulation of gingival tissue may appear due to the application of compressive or retraction forces at the site of extraction space closure. In orthodontic treatment, the extraction of teeth, most commonly, first or second premolars, may be required. Orthodontic space closure of extraction sites

may result in gingival invagination or accumulation of gingival tissue. [1] Removal of gingival papillae in closure sites seems to favour restitution of a more normal connective tissue. [2] The correct combination of orthodontic and periodontal treatment may contribute efficaciously to eliminate the effects of chronic periodontitis in adult patients, as well as improving esthetic parameters. [3] Strict adherence to the guidelines as a routine protocol for periodontal examination prior, during and following orthodontic treatment may dramatically decrease the severity and improve the prognosis of patients with aggressive periodontitis in orthodontic clinics. [4] On many occasions, a stable and esthetically acceptable outcome cannot be achieved with orthodontics without adjunctive periodontal procedures. [5]

CLINICAL EXAMINATION:

The patient had hindering fibrous gingival tissue in between canine and second premolar on both right and left sides

of maxillary arch. It was the healed extraction site of three mm on right side and two mm on left side in first premolar areas. The patient had braces with wires over her teeth as she was undergoing orthodontic treatment for past one year.

MATERIALS AND METHODS

Periodontal management was carried out in two phases. First was non surgical phase that included thorough scaling with the ultrasonic scaler & curette. Follow up of one week revealed resolution of inflammatory component of the tissue.

Subsequently surgical phase was performed under aseptic conditions by sterile surgical BP blade number 15 on both sides removing supra-crestal tissues under local anaesthesia. The orthodontic movement of teeth was continued on the day of periodontal surgery.

RESULT

It was found clinically that post surgical spaces between two teeth on both sides were closed within three weeks with routine orthodontic treatment. No relapse was seen upto three months of follow up.

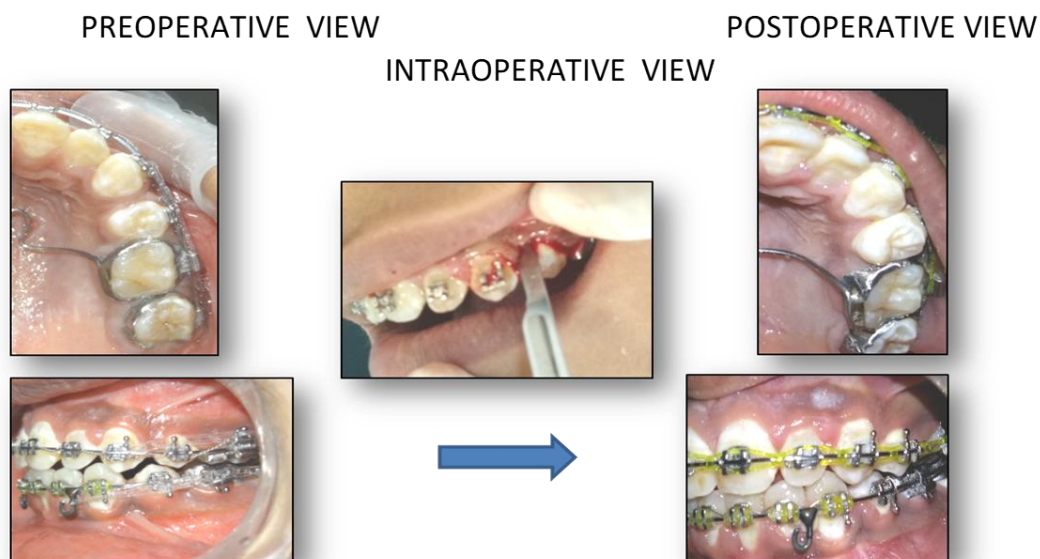


Figure 1: Clinical Images.

DISCUSSION

Identification of periodontal problems that could become more complicated during orthodontic therapy is essential for a complete and long term success of the therapy. Various studies conducted on interdisciplinary approach have shown the importance of the same. The results of the present case report are in collaboration with them. A similar case with unusual gingival coverage secondary to orthodontics treated by interdisciplinary approach showed successful results.^[6] The decision regarding the time of intervention and the sequence of periodontal and

orthodontic procedures is sometimes inevitably based on clinical experience,

published case reports or case series and subsequent arbitrary assumptions.^[7]

CONCLUSION

This case report highlights that periodontal treatment may facilitate orthodontic treatment. Therefore, it can be concluded that regular periodontal assessment is necessary in patients undergoing orthodontic treatment.

REFERENCES

1. Gorbunkova A, Pagni G, Brizhak A et al; Impact of Orthodontic Treatment on Periodontal Tissues: A Narrative Review of Multidisciplinary Literature. *International Journal of Dentistry*, 2016.
2. Kurol J, Rönnerman A, Heyden G, Long-term gingival conditions after orthodontic closure of extraction sites. Histological and histochemical studies. *European Journal of Orthodontics* 1982; May;4(2):87-92.
3. Dertona N, Alessandro P, Paolo AG; Orthodontic treatment in periodontal patients: A case report with 7 years follow-up. *International Orthodontics* 2011; 9(1): 92-109.
4. Liran L, Shmuel E, Hadar Z et al, Guidelines for periodontal care and follow-up during orthodontic treatment in adolescents and young adults. *Journal of Applied Oral Science* 2012; 20(4): 399–403.
5. K Vinod, Y Giridhar Reddy, Vinnay P Reddy; Orthodontic–periodontics interdisciplinary approach. *J Indian Soc Periodontol* 2012 Jan-Mar; 16(1): 11–15.
6. Nemichand B, Prahlad NS, Sameer NP et al, Periodontal therapy in Orthodontics- A case series: Apr 2013.
7. Rath SK, Datan SK, Kumar A, Ortho-perio management of malocclusion in an adult patient, *Journal of Interdisciplinary Dentistry*; 2017;7(1):41-44.

How to cite this article: Singh S, Nalwa V, Rani M. Role of periodontist in orthodontic treatment- a case report. *International Journal of Research and Review*. 2018; 5(12):207-209.
