

A Multidisciplinary Approach to Treating a Severe Gingival Recession in the Esthetic Zone

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Abstract

Gingival recession is a universal dental problem that can be especially difficult to treat when it involves the esthetic zone. The purpose of this case report is to demonstrate a multidisciplinary approach to treat a severe gingival recession in the esthetic zone for a patient with a high smile line. A rare complication of post removal during endodontic retreatment resulted in a severe gingival recession of the maxillary right central incisor. The gingival asymmetry was highlighted by the patient's high smile line. A multi-disciplinary approach was used to address the gingival recession including a gingival graft, orthodontic extrusion, and esthetic restoration. This case report highlights how a team of dental professionals can work together to treat a severe gingival asymmetry in the esthetic zone, combining periodontics, orthodontics, and prosthodontics.

Keywords: Gingival recession; Smile esthetics; Multidisciplinary

Approach; Orthodontics

Introduction

Gingival recession (GR) results from the apical migration of gingival

Tissues and is commonly found in most populations [1]. Reports on Prevalence range from 14 to 90 percent, depending on the population being studied [1-3]. The etiology of this problem is multifactorial and associated with root anatomy (dehiscence), tooth position in alveolar Bone, orthodontic tooth movement, mechanical trauma, width and Thickness of keratinized tissues, and chemical trauma [3]. However, the literature does not associate GR as a potential complication of post Removal during endodontic retreatment. Gingival recession can result in pain from dentin hypersensitivity [4], root caries [5], abrasion [3], fear of tooth loss [6], and unfavorable esthetics [6], especially when it occurs in the esthetic zone. This is especially true in patients with a high lip line that results in excessive gingival display when smiling and speaking. While generalized GR results in the appearance of longer teeth, which is associated with aging, asymmetric gingival margins in the anterior region has been shown to be especially undesirable

Material and Methods

This study has been approved by the University of Golden State, metropolis (UCSF) Committee on Human analysis. Development of the informative and Clinical Curriculum: A 10-week interprofessional medical specialty oral health course for college students in medicine,

nursing, medicine, associate degree pharmacy was administered by an knowledge base school team. This course enclosed weekly 1-h lectures for 10 weeks. Four lectures were delivered via pre-recorded on-line lectures, and six lectures (including case shows and discussion session) were delivered in-class. The topics of those lectures enclosed introduction on children's oral health, oral health disparities, and clinical assessment and follow.

Results

One way ANOVA showed significant difference between the Groups in Part 1. ($p < .001$, 95% CI=23.97-28.20). Post hoc tests showed That group 1A had significantly higher SBS than both the adhesive Alternative groups 1B and 1C (Figure 1 and 2). Note the variance as Shown in Table 1 was least for the manufacturers' protocol (group 1A). In Part 2 One-way ANOVA showed no significant difference ($p = .067$; 95% CI=25.45-27.93) between the groups. But post hoc tests Showed that groups 2A, 2B, and 2C had significantly higher SBS than Group 2D but not among themselves (A: $P = 0.042$ CI=-6.96- -0.13; B: $P = 0.023$ CI= -7.39- -0.56; C: $P = 0.026$ CI=-7.29- -0.47). Group D Protocol was the manufacturer's total etch two step using adhesive only (No primer).

Discussion

Although GR's etiology is multi-factorial [2,3], this case is unique in that the gingival defect was due to an accident during the manipulation of an ultrasonic instrument for post removal. Although the endodontic reported that the cause of the recession was generated because the ultrasonic instrument hit the gingiva, scientific evidence does not support the idea that the trauma alone could cause the GR. The literature cites numerous potential complications of post removal with an ultrasonic instrument, including dentinal cracking and excessive heat generation [13, 14]. This patient experienced severe apical migration of the facial gingival margin, but the interdental bone height was maintained which made this gingival recession less severe to treat.

Conclusions

Extreme care should be taken when using an ultrasonic instrument For post removal during an endodontic re-treatment because although It's very rare it could result in a severe gingival recession. This case report also highlights how a team of dental professionals can work together to treat a severe gingival asymmetry in the aesthetic zone, combining periodontics, orthodontics, and prosthodontics.