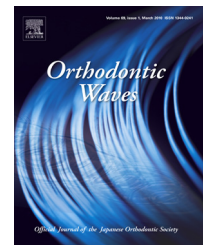


Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.elsevier.com/locate/odw

Case report

Comparison of monozygotic twins who received orthodontic treatment with self-ligated and conventional brackets: Case report

Ricardo Alves de Souza^{a,*}, Gregório Bonfim Dourado^b,
Marcelo de Castellucci e Barbosa^c, João Batista de Paiva^a

^a Orthodontics Department, University of São Paulo, USP, São Paulo, Brazil

^b Orthodontics Department, Technology and Sciences College, FTC, Jequié, Brazil

^c Orthodontics Department, Federal University of Bahia, UFBA, Salvador, Brazil

ARTICLE INFO

Article history:

Received 29 May 2017

Received in revised form

5 December 2017

Accepted 6 December 2017

Available online xxx

Key-words:

Self-ligated brackets

Monozygotic twins

Orthodontics

ABSTRACT

This study objectived to compare the performance of different brackets, conventional and self-ligated, under similar conditions, in monozygotic twins patients with severe tooth crowding. It was evaluated the rapidness of treatment, chair time, quality of finalization, comfort and hygiene of the patients. The treatments had a duration of 24 months in both cases, however, with the conventional appliance, less time was required for performing alignment and leveling. Whereas, treatment with the self-ligated appliance required fewer appointments, and chair time was reduced about 20%. Both patients had satisfactory hygiene, and did not complain of discomfort during the treatment. The self-ligated appliance was not superior, as both cases presented similar results and were concluded at the same time.

© 2017 Elsevier Ltd and The Japanese Orthodontic Society. All rights reserved.

1. Introduction

The Orthodontics has gone through a process of renovation and adaptation to the new technological resources, looking for making orthodontic therapy quicker, more comfortable and efficient [1]. Self-ligated (SL) brackets do not have ligatures, and are designed to be closed with a fourth wall, converting the bracket into a tube. The SL brackets can be classified according to the pressure that the system applies on the wire, as active or passive [2].

From the patient's perspective, SL brackets are more esthetic, comfortable, easier to clean, and the appointments take place at longer intervals of time. The reduction in chair time and speed of attendance are important for the professional [3]. The premise that the lower friction wire/bracket improve rapid movement, aroused the interest of the market and scientific community, because in this way orthodontic treatment would be performed in less time [4,5]. Thus, lighter forces would be necessary to perform dental sliding mechanics, and consequently, would cause

* Corresponding author at: Universidade de São Paulo, Faculdade de Odontologia, Departamento de Ortodontia e Odontopediatria, Avenida Prof. Lineu Prestes, 2227, Butantã, CEP: 05508900, Sao Paulo, SP, Brazil.

E-mail address: ricardosouza@usp.br (R.A. de Souza).

<https://doi.org/10.1016/j.odw.2017.12.002>

1344-0241/© 2017 Elsevier Ltd and The Japanese Orthodontic Society. All rights reserved.



Fig. 1 – Patient 1 (CV) at pretreatment: intraoral photographs, facial photographs and radiographs.

fewer root resorptions, leading to efficiency of the treatment [6].

The bracket/wire coefficient of friction and the efficiency of treatment between conventional (CV) and (SL) appliances have shown that the SL system has little [7,8], or no superiority [9,11]. Other authors have related superiority of treatment with CV brackets, using less time for alignment and leveling [12] and presented fewer failures [13].

Through this impasse, the authors decided to make a clinical comparison between CV and SL brackets with the treatment of two identical (monozygotic) twins with similar malocclusion.

2. History

The patients, 13-year-old monozygotic twin girls, melanoderma, Angle's Class II with severe crowding in the maxillary arch, ectopic canines and crossed lateral incisors, sought orthodontic care reporting that their smile and teeth were ugly. During the exam the authors observed that the patients presented other characteristics in common, such as a convex profile, dolicofacial pattern, medium buccal corridor and passive lip sealing. Small differences could be noted between them, as one presented discrete gingival exposure when smiling and

Download English Version:

<https://daneshyari.com/en/article/8707980>

Download Persian Version:

<https://daneshyari.com/article/8707980>

[Daneshyari.com](https://daneshyari.com)