W-Shaped Lingual Retainer Wire Stabilizer

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ABSTRACT

In orthodontics, the stability of the final occlusion is as important as the correction achieved. Since the beginning of the century, fixed retainers have been recommended after correction of rotated or tipped incisors and/or for maintenance of increased intercanine width. However, bonding a lingual retainer is still challenging as it requires long working time and has a risk of contamination from saliva and moisture which can cause bonding failure. So, the need for a device which would hold the lingual retainer wire was felt. So, a device was developed to hold wire with an ease, while bonding the lingual retainer.

Keywords: Orthodontic treatment, Fixed retainer, Lingual retainer, Retention, Device.

INTRODUCTION

In orthodontic treatment, the stability of the final occlusion is as important as the correction achieved. Since the beginning of the century, fixed retainers have been recommended after correction of rotated or tipped incisors and for maintenance of increased intercanine width.1-3 Following the introduction of the acid-etch technique, a variety of methods have been suggested for fabrication and bonding of fixed retainers to the lingual surface of upper and lower anteriors.2,4-9 However, bonding a lingual retainer is still challenging because it requires long working time and has a risk of contamination from saliva and moisture, which can cause bonding failure. In addition, directly it is difficult to hold the retainer wire to perfectly fit the lingual surfaces of an anterior tooth. So, a need for a device which would hold the lingual retainer wire was felt.

Procedure of Fabricating W-shaped Lingual Retainer

Step 1: A straight probe is taken
Step 2: Two equal pieces of 19 guage wire are cut, about 10 mm
Step 3: The two pieces of 19 guage wire are soldered to the probe at an angle of 45° to the probe
Step 4: The point of soldering is shown in Figure 1.

PROCEDURE

Before debonding, take an impression and pour an accurate cast in hard stone. Adapt the lingual retainer wire to lingual or palatal surface of the anterior teeth. The bonding of a fixed lingual retainer before debonding provides several advantages, including avoiding the relapse that might occur immediately after debonding, giving a patient time to adapt to the lingual retainer before debonding, and reducing complications at the debonding appointment.

The device is so fabricated that the arms hold the wire on to the lingual surface of upper and lower anterior teeth. This device has three arms and a handle as shown in Figure 1:
1. Middle arm—guiding arm which is placed between central incisor
2. Left and right arm—hold wire interdentally between lateral incisor and canine.

This device is easy to fabricate and time saving, as it holds the wire perfectly on the lingual tooth surface, so priming and light curing is done easily (Figs 2 to 3B).

ADVANTAGES

1. Precise placement of the retainer
2. Time saving, as light cure adhesive application can be done simultaneously.

Fig. 1: W-shaped lingual retainer wire stabilizer

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3. Economical, as no other material (like silicone impression materials) or expensive equipment (vacuum formed splints) is required
4. No need for fabricating transfer trays
5. Easy to place with minimal patient discomfort
6. No clean-up is required.

**CONCLUSION**

As there is general agreement on the necessity of fixed lingual retainers to prevent relapse in almost all patients after active orthodontic treatment. This is a device saves time and makes lingual retainer bonding easy and less laborious.

**REFERENCES**


**Erratum**

The editorial board of Journal of Indian Orthodontics regrets the inadvertent deletion of the name of Dr Chandra Das G Reader, Department of Orthodontics and Dentofacial Orthopedics, Noorul Islam College of Dental Sciences, Thiruvananthapuram, Kerala, as a contributing author for the article titled ‘Template for Soldering Retraction Hooks on Archwires’ published under clinical innovation in April-June 2011 issue.

So hereafter the citation for the article should be as follows: