

A new lingual retainer wire holding instrument with an integrated suction tip

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ABSTRACT

Retention is the most important phase of an orthodontic treatment. To maintain the corrected occlusion after fixed orthodontic treatment, there has been a routine protocol of giving fixed lingual retainers. Fixed lingual retainers help to prevent any kind of relapse after the completion of orthodontic treatment. Placement of fixed lingual retainers is a challenging procedure as it is a time consuming procedure and involves the risk of salivary contamination.

Keywords: fixed lingual retainer, integrated suction tip.

INTRODUCTION

Retention is the most important phase of an orthodontic treatment. To prevent any kind of relapse of orthodontic treatment; retainers are used. Retainers help in stabilization of the corrected malocclusion. Fixed retainers do not require any kind of patient compliance as is required for removable retainers. Placement of fixed retainers is a difficult procedure and different methods^{1,2} have been used to stabilize the retainer wire during its bonding. A lingual retainer wire holding instrument has been developed to facilitate easy placement of the retainer wire and to avoid the risk of salivary contamination while bonding the retainer.

FABRICATION

A mirror handle was taken and the mirror was removed to create a point for soldering a V-shaped rigid 19 gauge stainless steel wire. The ends of the V-shaped wire was bent at 90 degrees in such a manner that length of the bent portion was fixed at 10 mm on each side and the length of soldered portion was fixed at 25 mm on each side. An angle of 40 degrees was fixed between the two arms of V-shaped wire. Then two medium sized lingual cleats were soldered (Fig. 1) in such a manner that concave portion of the cleat faces upwards so as to hold any kind of lingual retainer wire.



Figure 1: Soldered lingual cleats

To accommodate the suction tip two additional wires (25 mm in length) made up of rigid 19 gauge stainless steel wire were soldered perpendicularly onto the mirror handle. The ends of these perpendicular wires were then formed into a circular shape of diameter 10 mm. The rounded ends of the perpendicular wires were used to hold the suction tip (Fig. 2).



Figure 2: Lingual retainer wire holding instrument with integrated suction tip

The gap between the two perpendicular wires was 10 mm. This lingual retainer wire stabilizer provides excellent stability of the retainer wire while bonding the retainer wire (Fig. 3) along with reduced risk of salivary contamination especially in the mandibular arch. This instrument can be used to reduce the chair side working time and increase the efficiency of the clinician.



Figure 3: Instrument while bonding the retainer

DISCUSSION

Properly placed instrument over the retainer helps in its stabilization along the lingual surfaces of the teeth and the integrated suction tip in the instrument helps to prevent the contamination while bonding thus reducing the chair side time, increasing the efficiency of the clinician and facilitating the easy placement of a lingual retainer.

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