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Review Article

SELF RETAINING LINGUAL RETAINER STABILIZER

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ABSTRACT

Here we are introducing a self retaining lingual wire stabilizer for stabilization, adaptation and proper positioning of lingual retainer wire prior to bonding. This placement technique of lingual retainer eliminate contamination of etched surfaces before bonding and allows the clinician to ensure the occlusion and adjust the retainer wire to avoid occlusal interferences before the bonding.

INTRODUCTION

Moyer defined retention as "maintaining the newly moved teeth in position long enough to aid in stabilizing their correction".1 The replase tendency is especially seen in proclined mandibular anterior teeth, spaced dentition, significant rotation and crowding was corrected , or where the inter-canine width has been significantly altered. There are two types of retainers: a removable and a fixed retainer. A bonded retainer is very useful, especially when the patient is keen to minimize risk of any relapse whatsoever. A good review of bonded retainers is written by Bearn.2 Various method have been advocated for stabilizing lingual retainers 3-6 including use of rare earth magnets4, GIC hooks5, etc.

Clinicians often find it difficult to stabilize the adapted retainer wire to the arch, which may cause displacement from the desired position and hence causing contamination and consumption of time in this technique sensitive procedure.

Hence, to overcome this difficulty, an appliance has been fabricated to stabilize the wire without interfering with the bonding procedure. Placement of this stabilizer before the bonding procedure ensures proper positioning by avoiding occlusal interference.

Procedure for fabrication of lingual wire stabilizer appliance-

The stabilizer appliance consists of three arms, one central and two side arms, the side arms converge towards the central arm, and the central arm passes through the helices formed in the side arms. The central arm further extends to act as the handle of the stabilizer. (Figure-1)

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Figure 1- Self retaining lingual retainer stabilizer

Armamentarium

- 1.2 mm Stainless steel round wire
- Solder and Flux
- Universal Pliers
- Hard wire cutter

- Central arm

  Take a 3 inches long straight 1.0 mm wire, and bend one end 90° at approximately 8 mm.

  At the other end make a circular loop of 6mm internal diameter

- Side arms

  Take another piece of wire of same diameter and of 2 inches length, bend one end of the wire as above, curve the middle part with convexity toward the central arm.

  Give a 90° bend towards the central arm and make a loop at approximately 8 mm distance with two turns

  Repeat the same procedure, for fabrication of the other side arm

- Horizontal segment

  Soldered to the central arm , ends in loops from which the two horizontal arms pass.

- Pulling arm.

  Solder a 3mm rounded wire fragment at the junction of the three arms.

Figure 2- Lingual retainer wire stabilize using self retaining lingual retainer stabilizer

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

CLINICAL APPLICATION-

1. Make an accurate impression of the arch, and pour the impression with dental stone.
2. Adapt lingual retainer wire over the palatal surfaces of the cast.
3. Perform pumice prophylaxis of the palatal surfaces.
4. Place the retainer wire in position and stabilize it with Lingual wire stabilizer.
5. Perform the bonding procedure as done in routine.

Advantages-

1. Easy and convenient to place.
2. Self retaining and does not cause any tooth movement on its own.
3. Can be used before or after debonding.
4. Time saving.
5. Economical, as no special technique is required to fabricate the appliance.
6. No need of fabrication trays.
7. No clean up required after use.

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