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A customized bondable Transpalatal Arch

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Abstract

The exigency of atraumatic bondable orthodontics necessitated the development of a bondable transpalatal arch. The following article describes the preparation of a customized bondable TPA, as a means of anchorage preservation in high anchorage cases. Bondable TPA besides being less time consuming overcomes the potential discomfort of banding of the molars.

Keywords: TPA, Sharp Edges, Bondable

Introduction

With the commencement of bondable molar tubes in day-to-day orthodontic practice, the rate of banding of molars has been reduced. In high anchorage cases, it is obligatory to have a bondable TPA when bonded molar tubes are used in lieu of banding.

Appliance design

The TPA was fabricated from 20 gauge stainless steel wire with a single bend back on the patient cast.

Two pieces of band material was cut into rectangular shape of 4X6 mm dimension.

Then one piece on each side was stabilized on the single bend back being placed on the middle and was soldered such a way that the unsoldered surface of the band piece faces parallel to the palatal surface of the patient's molars (Fig 1).

The sharp edges of the rectangular shaped band pieces were then trimmed to obtain smooth borders.

The plain surfaces on either side were then sandblasted to increase the surface area and also to remove the soot formed during soldering. Then the sandblasted surface was etched with 10% hydrofluoric acid etchant gel for 20

seconds on each side to further increase the surface area. Later it was cleansed and dried.

The finished TPA was then checked on the patient cast to ensure proper adaptation and fitting(Fig 2).

The palatal surface of patient's upper first molars was isolatedand etched.

Composite was applied on the sandblasted & etched surfaces and positioned on the palatal surface of the first molars, and then light cured (Fig 3).

Advantages

Customized bondable TPA is advantageous because:

1. It eliminates molar banding, hence reduces the gingival inflammation.
2. It is easier to maintain the oral hygiene.
3. Moreover, since there is no lingual sheath or band material present; it requires little or no adjustments.

Conclusion:

Bondable TPA using the band material provides an upper hand in reinforcing the anchorage needs of the cases with bondable molar tubes. Besides being patient friendly & cost effective, it is less bulky and can be fabricated easily in the

Legend Figure

Figure 1: Base of TPA is sandblasted and etched

Figure 2: Finished TPA checked on patients cast

Figure 3: TPA is bonded on to the molars

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