

Original Research

A Simple and Effective Method for Translatory Movement

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ABSTRACT:

This is a simple and effective method to prevent tipping of teeth while using piggyback wire to align an ectopically erupted tooth.

Keywords: Translatory Movement, Ligature Tie, Ectopic Eruption.

Received: 12 April, 2020

Accepted: 28 April, 2020

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This article may be cited as: Gupta S, Gupta M, Reddy MC, Raghav P. A Simple and Effective Method for Translatory Movement. J Adv Med Dent Scie Res 2020;8(6):70-71.

INTRODUCTION:

The mandibular permanent lateral incisor is the most often displaced mandibular tooth with a developmental pattern evidencing atypical paths of eruption and anomalous positioning.¹ Its abnormal eruptive path is usually a result of the presence of a physical impediment, such as a supernumerary tooth, an odontome, severe crowding, altered eruption paths, trauma, genetics, or retained deciduous teeth.²

Management of a displaced lateral incisor is challenging as we usually apply active orthodontic force labial to the centre of resistance of the tooth in a

conventional labial fixed orthodontic appliance, thereby creating a moment which often tends to tip the crown labially while the root remains lingual. Consequently, effective management can be done by applying the force as close to the centre of resistance as possible or more lingual to the teeth so that the root movement can be accomplished along with the crown movement leading to a more translatory movement of the teeth.

This article discusses an effective clinical technique for a more translatory movement of palatally/lingually erupted teeth.

THE TECHNIQUE

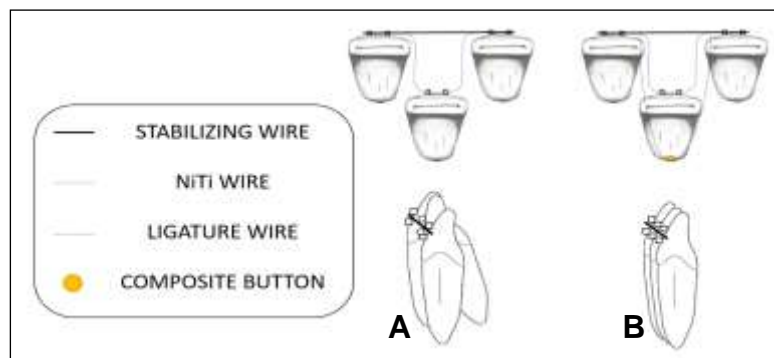


Figure 1: A) Tipping Movement; B) Translatory Movement

As an Orthodontist, one generally puts a piggyback NiTi wire in the ectopically erupted tooth after creating space for the tooth in the arch. But this applies active orthodontic force labial to the centre of resistance of the tooth, thereby creating a moment which often tends to tip the crown labially while the root remains at its initial position (Figure 1 A). To avoid this and achieve a more translatory movement of the teeth, a composite button is bonded on the lingual/palatal side of the concerned tooth as close to the centre of resistance of the tooth as possible. An active ligature tie is made on to the stabilizing archwire by passing the ligature wire interdentally and below the composite button (prevents slippage of ligature wire) encircling the tooth (Figure 1 B).



Figure 2: A and B showing two different cases of the described technique.

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