

Spec Rekindled-A Simple Torque Correction Mechanics for Transposed Teeth in Conjunction with Pre-adjusted Edgewise Appliance System

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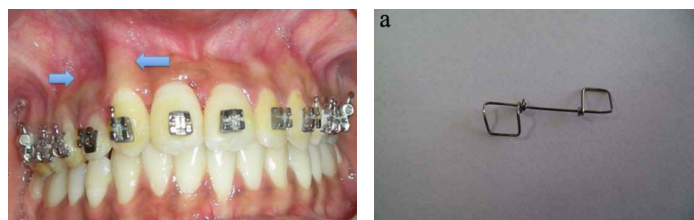
ABSTRACT

Complete transposition of teeth is a rather rare phenomenon. After correction of transposed and malaligned lateral incisor and canine, attainment of appropriate individual antagonistic tooth torque is indispensable, which many orthodontists consider to be a herculean task. Here, a novel method is proposed which demonstrates the use of Spec reverse torquing auxillary as an effective adjunctive aid in conjunction with pre-adjusted edgewise brackets.

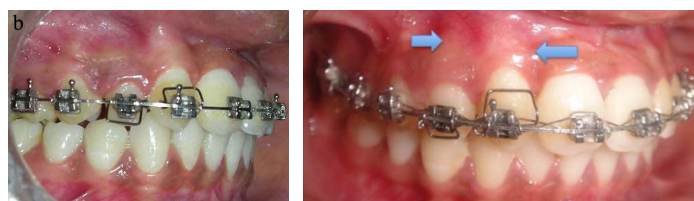
Keywords: Auxiliaries, Transposition, Torquing

This article proposes an effective and novel technique, a tip demonstrating the use of Spec reverse torquing auxillary in conjunction with Pre-adjusted Edgewise Appliance (PEA) bracket system.

A 22-year-male with Angle's Class I type 1 malocclusion had transposition of upper right lateral incisor with canine [Table/Fig-1]. Case was treated with pre-adjusted brackets over the period of 18 months. After consolidation of arch, Spec torquing auxillary [Table/Fig-2a,2b] was placed for three months for correction of torque of lateral incisor and canine. Favourable torque changes achieved by use of spec are illustrated in [Table/Fig-3].



[Table/Fig-1]: Prominent buccal root of transposed canine and labial crown torque in lateral incisor. [Table/Fig-2a]: Spec torquing auxillary.



[Table/Fig-2b]: Spec torquing auxillary in-situ.
[Table/Fig-3]: Corrected root position of transposed teeth.

FABRICATION

Spec is fabricated from 0.010 supreme pulse-straightened Australian A-J Wilcock wire. The box on the tooth (canine) requiring palatal root torque is placed gingivally while the box on the adjacent tooth (lateral incisor) requiring labial root torque is directed occlusally. Spec

is engaged first and the base wire is engaged piggyback. Forces generated by the auxillary can be altered by varying the angulation between the planes of two boxes of the auxillary.

DISCUSSION

Complete transposition of teeth is a relatively rare phenomenon. It is a peculiar type of eruption, where each ectopic tooth changes the normal dental order in the arch; with 0.43% prevalence in India [1]. In maxillary arch, lateral incisor and canine are involved (45% incidence). After correction of transposed and malaligned lateral incisor and canine, attainment of appropriate individual antagonistic tooth torque is indispensable, which many orthodontists consider to be a challenging task. Inversion of pre-adjusted brackets through 180° allows for the reversal of torque values. However, time and cost involved in the removal, replacement and recycling of brackets is obvious. Bond strength is also compromised by recycling procedures.

Spec auxillary was initially designed by Mollanhaeur B for use with ribbon arch brackets [2]. Till date, no reports exist in literature regarding the use of spec in conjunction with PEA system. Fabrication of Spec from ultra-fine pulse-straightened wire keeps the forces light, without causing excessive root resorption during delivery of antagonistic torque force.

Use of Spec auxillary can preclude the need for inversion of preadjusted edgewise brackets mid-treatment (during treatment progress) and allows the delivery of adequate antagonistic torque on adjacent teeth in same arch.

REFERENCES

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FINANCIAL OR OTHER COMPETING INTERESTS: None.

Date of Submission: Jun 25, 2016
Date of Peer Review: Aug 13, 2016
Date of Acceptance: Sep 05, 2016
Date of Publishing: Dec 01, 2016