Modified Smith’s Rotation Tie

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ABSTRACT

Rotation correction is challenging in lingual orthodontics due to shorter interbracket distance. Smith’s rotation tie is one of the means to derotate anterior teeth. Here, we have described a case report of a 22-year-old female, who was undertaking orthodontic treatment with lingual technique, in which canine was derotated using modified Smith’s rotation tie.

Keywords: Derotation, Lingual orthodontics, Modified Smith’s rotation tie.

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Lingual orthodontics is nowadays a well-recognized discipline in the light of growing demand for esthetics by patients. Tooth alignment and facial balance need an invisible means of reaching their goal. Lingual orthodontics is the esthetic solution to this problem. Lingual technique gives more than satisfactory results when treating all kinds of malocclusion.

Due to the shorter interbracket span, rotation correction is difficult in lingual technique. Some of the efficient methods are Smith’s rotation tie, bend loops and power arms.

One of the disadvantages of Smith’s rotation tie is that it may slip incisally on the canine due to its morphology. Here, we are describing a method to prevent the slippage with the use of a composite button. A composite button* is bonded on the labial surface of the tooth (distolabially rotated 23, Fig. 1) and the power chain is made to pass over it (Figs 2A and B). This will prevent the slippage and moreover as the composite is tooth colored, the goal of esthetics in lingual orthodontics is maintained (Fig. 3).

Smith’s rotation tie requires some space interdentally in order to pass the E-chain, however, with modified rotation tie, correction can be achieved even if the adjacent teeth are in contact. In case of a severely crowded and rotated anterior tooth, modified Smith’s rotation tie can be given after creating space for derotation of the anterior tooth.

REFERENCE