Clinical Pearl

SIMULTANEOUS DEROTATION AND RETRACTION OF CANINES: A NEW APPROACH

[1]Dr. Dweepika Garg, [2]Dr. Santosh Kumar Gose
[1-2]Vadodara, Gujrat India.

To cite: Dr. Dweepika Garg, 2Dr. Santosh Kumar Gose - Quick assessment of dento-skeletal asymmetry by a Customized Transparent Graphed Jig (CTGJ) - A Diagnostic Tool 2019;3(1): 48-49.

Received on:
15-01-2019

Accepted on:
20-03-2019

Source of Support: Nil

Conflict of Interest: None

INTRODUCTION

Upper and lower anterior crowding is commonly encountered in daily practice. The most common etiology includes tooth material and arch size discrepancy. Often, in anterior crowding case, the canines are rotated.

The present article describes an easy approach to derotate the canine while retracting it simultaneously.

CASE DESCRIPTION

T.S, a 16-year-old male, reported with a chief complain of irregularly placed teeth. Clinical examination and analysis of records showed Angle's Class I molar relation bilaterally on a class I skeletal base. The lower arch had moderate crowding with distolingually rotated canines. Oral hygiene status was fair. Lips were competent at rest.The mid reference line or "Y – Line" is used for coinciding the upper arch with mid palatal raphe, the horizantal reference lines are used for the assessment of first molar and canine position while the model base line is used for coinciding the lower border of model or cast.

TREATMENT PLAN

Treatment involved orthodontic fixed appliance mechanotherapy using metal brackets with 0.022×0.027(MBT) prescription. Optimal orthodontic and esthetic result was to be achieved by extraction of four 1st premolars.

TREATMENT PROGRESS

After extraction of 1st Premolars in lower arch, a lingual button was bonded on the lingual aspect of canines. Simultaneous retraction and derotation was initiated by passing an elastomeric chain from the lingual button to the molar hook.

Conventionally this situation is treated by bonding the bracket on labial side and engaging a flexible Nitinol wire to aid in derotation of canine; following which it is retracted using active tie backs to relieve lower anterior crowding.

But this innovation of bonding a lingual button, reduced the treatment duration considerably, since canine got retracted while getting derotated.

CONCLUSION

The ultimate aim of the orthodontist should be to reduce the treatment duration of the patient. This clinical innovation of bonding a button on the lingual surface of the canine, reduced the duration of treatment by 3 months, since retraction of canine was simultaneously achieved while correcting its distolingual rotation.

REFERENCES

1. Mözgür Sayin and Hakan Türkkahraman (*2004*) Factors Contributing to Mandibular Anterior Crowding in the Early Mixed Dentition. The Angle Orthodontist: December 2004, Vol. 74, No. 6, pp. 754-758.
2. Nightingale C, Jones SP. A clinical investigation of force delivery systems for orthodontic space closure. J Orthod. 2003 Sep;30(3):229–36.
3. Dittmer MP, Demling AP, Borchers L, Stiesch M, Kohorst P, Schwestka-Polly R. Tensile properties of orthodontic elastomeric chains. J Orofac Orthop. 2010 Sep;71(5):330–8.
4. Little RM. Stability and relapse of mandibular anterior

alignment: University of Washington studies. Semin Orthod. 1999;5(3):191–204

5. Van der Linden FP. Theoretical and practical aspects of crowding in the human dentition. J Am Dent Assoc. 1974;89(1):139–153

Fig1: Pre-op view of distolingual rotation of canine.