

## Clinical Pearl

# SIMULTANEOUS DEROTATION AND RETRACTION OF CANINES: A NEW APPROACH

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## 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 horizontal 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 1<sup>st</sup> premolars.

## TREATMENT PROGRESS

After extraction of 1<sup>st</sup> 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.

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

