

T-Loop Mechanics in the Treatment of Erupting Mandibular and Maxillary Impacted Canines- A Case Report

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ABSTRACT

Correction of ectopically erupting mandibular and maxillary impacted canine can pose a few problems especially in adult patients. A case of severely displaced impacted maxillary canines treated using hybrid sectional mechanics is reported. Palatal canines have a poor prognosis for erupting into oral cavity spontaneously.

KEYWORDS: T Loop, Canine, Impaction, Dentistry, Treatment

INTRODUCTION

Diagnosis of labial location of the canine may not be easy to confirm radio graphically. At this relative height, the panoramic view shows it to traverse the apical areas of the lateral and, sometimes central incisors.² Nevertheless, confirmation of labial location may be deduced given the presence of the tooth as it is imaged superimposed on the root of this lateral incisor and, from the clinical examination, the fact of palatally prominent root. In the event that progress is not achieved within a few months, simple surgery, attachment bonding and traction from an auxiliary nickel-titanium wire or elastic ligature will be sufficient to resolve the problem.³

CASE REPORT

A-14 years male patient initially reported with missing of canine in lower arch. Upon examination for orthodontic treatment, the patient had a class I type II malocclusion. The over jet was 8 mm, and increased overbite. The upper segment was proclined and crowding in lower arch with molar relation (class1) on both sides(Fig 1a,b). OPG radiograph revealed bilateral impacted mandibular canines and unilateral impacted maxillary canine(Fig 2).

The orthodontic treatment was to align the unerupted permanent canines using extraction approach. The canines were surgically exposed and bonded with lingual button. Once the canine was visible in arch and bonded with Roth 022'' canine brackets, a successful alignment and retraction was achieved using T- LOOP mechanics. The root up-righting and canine retraction was achieved using loops in all segment (.019x.025'' TMA). Later brackets were placed in upper and lower arches bite opening and space were closed with the help of T-loop.

One year post operatively, significant correction of unerupted canines had occurred (Fig 3).

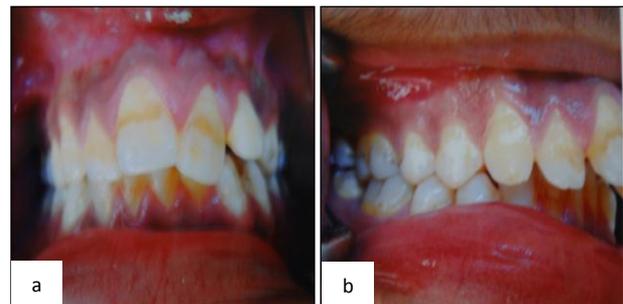


FIG-1a,b: intra oral pre treatment photograph



FIG-2: showing bilateral impacted canines

DISCUSSION

Correction of an impacted erupting tooth depends, to a large extent, on the timings of its detection. If this condition is detected early enough,⁵ it is often possible to correct it with minimal disturbance of the tissues. Given these drawbacks, the more severely displaced

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FIG-3: Intra Oral Post Treatment Photograph

buccal canines of this type may occasionally need to be extracted. In this instance, it is recommended to provide additional space mesially and distally, to allow for its crown to be prosthetically enlarged in anticipation of a later implant restoration when the deciduous tooth is finally lost.⁴

If the deciduous canine has a poor prognosis, an early decision regarding space closure or space opening should be made. Where appropriate, controlled orthodontic space closure may then be carried out, with or without a compensating extraction on the opposite, unaffected side. Alternatively, orthodontic preparation of the case for an implant-borne replacement crown will need to be undertaken as part of the overall orthodontic treatment.⁶

CONCLUSION

Correction of ectopically erupting canines can pose a few problems especially in older patients. The proposed

mechanics using the T- LOOP would hopefully help clinicians to treat similar cases with more predictable ease. But the basic fact remains that – each case should be judged individually and the mechanics should govern the choice of an appliance and not vice versa.

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