Combination of Surgical Exposure and Fixed Orthodontic Appliance as Bilateral Impacted Canine Correction

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Introduction

Canine has high prevalence to be impacted after wisdom teeth because of several reasons. However, it has a major role in jaw function and aesthetics, so it is necessary to retain permanent canine in oral cavity. Impacted canine widely treated by surgical exposure followed with orthodontic retraction.

Aim

To explain management of bilateral impacted permanent canine related to deciduous persistence.

Case Report

18 years old patient complaining protuded and crowding of upper jaw. Clinical examination revealed persistence of upper deciduous canine. The permanent canine was impacted with an unfavorable inclination that may not support spontaneous eruption, even if deciduous canine has extracted. Midline was shifted 1.5mm to the right towards upper jaw. Molar relation right and left were class I. Overjet and overbite were normal.

Orthodontic treatment was done by fixed appliance with Straight Wire system slot 0.22.

Leveling and aligning using NiTi wire 0.14 followed by NiTi 0.18.

Crowding has been corrected after 7 months and serve available space for canine eruption.

Result

Anterior crowding and midline shifting was corrected in two years completed with full eruption of permanent canine.

Discussion

If it’s possible, extraction of the canines should be avoided because maxillary permanent canines are important for an attractive smile and also essential for a functional occlusion (Vaida et al, 2014; Aksu et al, 2006). Untreated impacted canines may cause arch length discrepancies, loss of vitality of adjacent teeth, follicular cysts, canine ankylosis, infections, and pain (Paduano, 2014). In this case surgical exposure of the canine with open flap by full thickness triangular flap and followed by orthodontic treatment to bring the tooth into the line of occlusion is the most appropriate approach.

Conclusion

Bilateral impacted permanent canine can be treated by surgical exposure and orthodontic management that result an optimum function and aesthetics.

References