

INCIDENCE, ETIOLOGY, SURGICAL AND ORTHODONTIC
MANAGEMENT OF UNERUPTED AND IMPACTED MAXI-
LLARY CANINES ..

By

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- INTRODUCTION :

The maxillary anterior teeth are the most frequently misplaced teeth in the dental arch. The canine is considered the second to the third molar in frequency of impaction, with a prevalence between 1% and 1.6%.⁽¹⁾

When lying in an unfavourable position it is a difficult problem for the orthodontist, especially as it is often associated with some loss of space. Bass⁽²⁾ stated that the incidence of this type of problem is between 1.5 and 2 percent of all orthodontic cases, also investigated the time required for treatment and showed that in 90% of the cases surgery was required and the duration of orthodontic treatment was from 9 to 21 months.

Maxillary canines occupy a strategic position in the dental arch and constitute an important factor in

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both aesthetic and function.⁽³⁾ They help support the facial musculature and their loss often results in flattening of the face in this region which is difficult to restore to normality.⁽⁴⁾ Because of their firm anchorage and important position in the dental arch, maxillary canines are thought to be important as a "guide post" in occlusion.⁽⁵⁾

Broadbent⁽⁶⁾ was against early correction of the flared and distally tipped lateral incisors for fear of either impacting the canines or resorbing the roots of the lateral incisors.

Treatment of misplaced maxillary canines often presents a major challenge to the orthodontist and the oral surgeon.⁽⁷⁾

The orthodontic movement of impacted or unerupted teeth has attracted much attention in the literature with numerous publications recommending various techniques for managing this common clinical problem.⁽⁸⁾ Two of the most frequently employed methods of placing an attachment on an impacted tooth that is to be moved orthodontically are the wire ligation around the cervix,⁽⁹⁾ and the direct bonding of the attachment on the crown.⁽¹⁰⁾

Recently, the absence of the maxillary lateral incisors and their variation in root size as well as variation in the timing of their root formation, have been implicated as important etiologic factors associated with canine impaction.^(11,12 & 13)

As a consequence, the present study was carried out to determine the incidence, etiology surgical and orthodontic management of unerupted and impacted maxillary canines.

- MATERIAL & METHODS :

Examination was carried out on 870 Saudi patients attending orthodontic clinics with various types of malocclusion and their ages ranging from 14-27 years. They were 490 cases from Al-HASA Dental Center in Hufuf and 380 cases from El-Noor Hospital in Makkah.

Cases of maxillary canine malposition were selected, clinical examination and study models were taken for each patient. They were subjectively evaluated, assessed and the data were recorded separately. The cases were subgrouped according to the etiology, and nature of malpositions for both sexes.

Occlusal, periapical and panoramic radiographs were used to determine location and position of unerupted and impacted teeth (Fig.1).

Surgical procedures were done under local anaesthesia using strict aseptic technique. For unerupted maxillary canine either palatally or labially simple surgical window technique was used to expose the crown of the unerupted tooth and bracket was applied to the tooth surface, then periodontal pack was used to cover the window, and removed