

Canine Impactions- Surgical and Orthodontic Considerations

The permanent canines are the foundation of an esthetic smile and functional occlusion. Factors that interfere with its development and eruption had serious consequences on esthetics, function and stability of stomatognathic system. Many authors speculated about the cause of impacted mandibular canines. These causes include inadequate space, supernumerary teeth, and premature loss of the deciduous canine, excessive crown length, hereditary factors, and functional disturbances of the endocrine glands, tumors, cysts and trauma. Impacted mandibular canines are also more likely to be located on the labial aspect of the dental arch than are maxillary canines Shafer et al. suggested the following sequela of canine impaction: labial or lingual malpositioning of impacted tooth, migration of the neighboring teeth and loss of dental arch length, internal resorption, dentigerous cyst formation, infection particularly with the partially erupted tooth. Partly erupted or impacted cuspids may increase the risk of infection and cystic follicular lesions and compromise the lifespan of neighboring lateral incisors due to root resorption.

The different methods of diagnosis that may allow for early detection and prevention should include a family history, visual and tactile clinical examinations by the age of 9-10 years and a thorough radiographic assessment. Because there is a high probability that palatally impacted maxillary canines may occur with other dental anomalies, the clinician should be alert to this possibility. When the condition is identified early, extraction of the deciduous canines may, in specific cases, allow the impacted canines to correct their paths of eruption and erupt into the

mouth in relatively good alignment. Clinical signs that may indicate ectopic or impacted cuspids include lack of a canine bulge in the buccal sulcus by the age of 10 years, over retained primary cuspids, delayed eruption of their permanent successor and asymmetry in the exfoliation and eruption of the right and left canines.

In conclusion, the management of impacted canines has a multidisciplinary approach as it plays a vital role in esthetics and function. Surgical exposure and orthodontic correction is the most preferable treatment unless contraindicated. Extraction of the impacted canine should be the last resort, as every impacted canine should be treated in a hostile way to prevent its complications.

This presentation reviews its diagnosis and treatment plan in an orthodontic and surgical aspect.