



DILACERATED IMPACTED MAXILLARY CANINE IN A BIZARRE ANGULATION: AN UNUSUAL CASE REPORT

Dental Science

Dr. Bhavna Singh M.D.S. (Corresponding Author) Assistant Professor, Department of Dental Surgery, Moti Lal Nehru Medical College, Allahabad

Dr. Vijay Bahadur Singh M.D.S. Professor and Head of Department, Department of Dental Surgery, Moti Lal Nehru Medical College, Allahabad

ABSTRACT

With increasing arch length discrepancies, impacted maxillary canines are often encountered in the dental practice. The impacted tooth's position and angulation is what governs the decision between orthodontic alignment vs surgical extraction. The present case report describes the management of an unusual case of dilacerated, impacted permanent right maxillary canine with bizarre angulation. Owing to its poor angulation, the tooth was managed by surgical extraction.

KEYWORDS:

Impacted maxillary canine; dilacerated maxillary canine; surgical extraction.

Maxillary canine Impactions are frequently encountered in dental practice, being second only to mandibular 3rd molars.¹ Frequency of canine impaction varies between 0.8 to 2.8 %. Maxillary canine impaction occurs in approximately 2% of the population and is twice as common in females as it is in males. Palatal impactions are more common (85%) than buccal. Of all patients who have impacted maxillary canines, 8% have bilateral impactions.²

However, it is not everyday that an impacted tooth presents with an extra oral opening for eruption. The present case-report describes one such very unusual presentation of an impacted canine trying to erupt extra-orally.

CASE REPORT

A 20 year old male patient, reported with an unusual complaint of tooth erupting extra-orally, next to his nose. On thorough clinical examination it was noted that a tooth was indeed visible extra-orally, on the right side, latero-inferior to the right nasal orifice. (Figure 1)



Figure 1 : Extra-oral view depicting visibility of tooth, latero-inferior to the right nasal orifice

Intraoral examination revealed absence of right maxillary canine in the oral cavity, with root stumps of 15, 36, 46 and poor oral hygiene. (Figure 2,3,4) Maxillary midline was shifted to right and maxillary right first premolar was present next to the incisor, nearly obliterating the canine space. Patient did not give any history of prior dental extraction or any trauma during childhood. Impacted maxillary canine, trying to erupt by piercing through the upper lip was suspected. Panoramic x-ray was advised to confirm the same.³



Figure 2,3 & 4 : Right buccal view, left buccal view & maxillary occlusal view respectively

Radiographic evaluation confirmed presence of horizontally impacted, bucco-lingually placed right maxillary canine. (Figure 5)



Figure 5 : Panoramic x-ray

Orthodontic exposure and traction for alignment was ruled out, due to the bizarre angulation of the tooth and lack of patient willingness for the same. Surgical extraction of the impacted canine was planned in the best interest of the patient. Routine blood investigations were carried out prior to surgery.

Since the crown was placed labially, close to the mucogingival junction, a buccal incision and apically positioned flap was raised to expose the crown.⁴ (Figure 6) Careful surgical extraction was carried out, avoiding any trauma to the adjacent lateral incisor and premolar teeth. (Figure 7) After extraction, the flap was sutured back in place with interrupted sutures, and post operative instructions were given to the patient. (Figure 8)

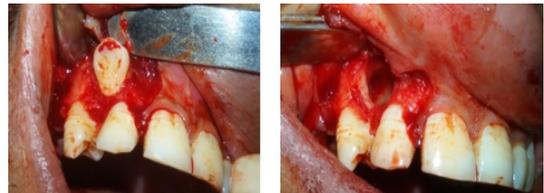


Figure 6,7 : Canine exposed after buccal flap, Post extraction canine socket



Figure 8 : 3 interrupted sutures placed for flap closure

It was noted that the canine had a significant dilaceration in the apical third of its root, indicating possibility of trauma during childhood. (Figure 9,10) This however could not be confirmed as patient could not recall any such incident.



Figure 9, 10 : Showing Dilaceration in the apical third of the extracted canine root

Medication was continued for five days and patient was recalled in one week for suture removal. Post operative recovery and healing were uneventful. Oral prophylaxis and extraction of root stumps (15, 36 and 46) followed by prosthetic rehabilitation was explained and advised to the patient which he refused and deferred for a later date.

DISCUSSION & CONCLUSION

Maxillary canines are one of the most important teeth in the oral cavity. They support the lip and facial muscles, forming the cornerstones of the mouth and smile, and give the most efficient canine guided occlusion. However, maxillary canine impaction is a rather common presentation in the dental practice. The etiology of impaction is known to be multi-factorial including: genetic, delayed or early shedding of deciduous canine, tooth material - arch length discrepancy, trauma, etc. Most of the times, if the patient presents before 20-25 years of age, and if the canine location and/or angulation is not contraindicated for orthodontic alignment, it is best treated and aligned orthodontically. When patient reports at later ages, many times due to the duration of treatment and social stigma still attached with wearing braces, patients may refuse orthodontic treatment. If the canine location / angulation is unfavourable, surgical extraction and prosthetic rehabilitation is the preferred treatment option.

The extraction of the canine, might be the preferred option in the following situations:²

1. If it is ankylosed and cannot be transplanted,
2. If it is undergoing external or internal root resorption,
3. If its root is severely dilacerated,
4. If the impaction is severe (e.g., the canine is lodged between the roots of the central and lateral incisors and orthodontic movement will jeopardize these teeth),
5. If the occlusion is acceptable, with the first premolar in the position of the canine and with an otherwise functional occlusion with well-aligned teeth,
6. If there are pathologic changes (e.g., cystic formation, infection), and
7. If the patient does not desire orthodontic treatment

Clinicians must formulate treatment plans that are in the best interest of the patient and they must be knowledgeable about the variety of possible treatment options.

The present case report describes one such bizarre impacted, dilacerated right maxillary canine, which was successfully managed by the surgical approach.

REFERENCES

1. Litsas G. A review of early displaced maxillary canines: Etiology, diagnosis and interceptive treatment. *Open Dent J.* 2011;5:39-47.
2. Bishara SE. Impacted maxillary canines: A review. *Am J Orthod Dentofacial Orthop.* 1992;101:159-71.
3. Ericson S. radiographic examination of ectopically erupting maxillary canines. *Am J Orthod Dentofacial Orthop.* 1987;91:483-92.
4. Kokich VG. Surgical and orthodontic management of impacted maxillary canines. *Am J Orthod Dentofacial Orthop.* 2004;126:278-83.