

## Surgical management of impacted maxillary canine: A short case report

Ashvini Vadane<sup>1\*</sup>, Hassaan Kazi<sup>2</sup>

<sup>1</sup>Senior Lecturer, <sup>2</sup>Post Graduate Student, <sup>1,2</sup>Dept. of Oral and Maxillofacial Surgery, <sup>1,2</sup>M.A.Rangoonwala College of Dental Sciences and Research Centre, Pune, Maharashtra, India

**\*Corresponding Author: Ashvini Vadane**

Email: drashvinivadane@gmail.com

### Abstract

The frequency of impaction of maxillary canine is 0.8% to 2.8%. In 85% cases, palatally impacted maxillary canine is found and in 15% cases, buccally impacted maxillary canine is found.<sup>4</sup>

In this case report, we are presenting case report of palatally impacted maxillary canine which was surgically extracted and the case was successfully managed in the department of Oral & Maxillofacial Surgery of M. A. Rangoonwala College of Dental Sciences and Research Centre, Pune.

**Keywords:** Impacted canines, Maxillary canine, Palatally impacted canine, Palatally displaced canine.

### Case Report

A 53 years old female patient visited department of Oral & Maxillofacial Surgery of M. A. Rangoonwala College of Dental Sciences and Research Centre, Pune with the chief complaint of pain in the left upper front teeth region of jaw since 15 days. Patient also gave history of swelling in the same region, one month back which was associated with pain. After clinical examination, we advised the patient for radiographic examination, i.e., Cone Beam Computed Tomography. CBCT [Cone Beam Computed Tomography] examination revealed that there was the presence of right and left maxillary impacted permanent canines. As the pain was associated with left side only, we planned for the surgical extraction of left maxillary impacted permanent canine under local anaesthesia. Left side infraorbital nerve block and greater palatine nerve block was administered. Crevicular incision was taken from distal to right side second premolar to distal to left side canine and mucoperiosteal flap was raised with the help of periosteal elevator. The canine was exposed and tooth sectioning was performed with surgical bur. The surgical site after the extraction of canine is as shown in figure no. 1



**Fig. 1: Operated site after surgical extraction of left side impacted permanent canine [Mirror – image view].**



**Fig. 2: Picture showing extracted canine tooth.**

Closure was performed with 3-0 mersilk after thorough betadine irrigation of surgical site.



**Fig. 3: Surgical closure of operated site [Mirror – image view].**

After performing suturing, acrylic plate was placed with the help of wire for palatal support. This acrylic plate helps in support and prevents haematoma.



**Fig. 4: Acrylic plate fixation.**

Proper follow-up was maintained. Plate/ stent removal followed by suture removal was done on 10<sup>th</sup> day. Follow-up pictures are as shown in Fig. 5 and Fig. 6.



**Fig. 5: 10<sup>th</sup> day post-op picture.**



**Fig. 6: 10<sup>th</sup> day post-op picture after suture removal.**

The patient had not shown any postoperative complications and the case was successfully managed in the department of Oral & Maxillofacial Surgery of M. A. Rangoonwala College of Dental Sciences and Research Centre, Pune.

## Discussion

Canine teeth play an important role in establishing proper dental arch form as well as in esthetics.<sup>5</sup> Maxillary canine tooth is the second most common impacted tooth in the oral cavity after the mandibular third molar. The rate of

maxillary canine impaction is less than 2.8%. Impacted maxillary canine is found more than twice in females as compared to males. The frequency of impaction of maxillary canine is 0.8% to 2.8%. In 85% cases, palatally impacted maxillary canine is found and in 15% cases, buccally impacted maxillary canine is found.<sup>4</sup> Among all patients of maxillary canine impaction, approximately 8% have bilateral impaction.<sup>4</sup> “Guidance Theory” and “Genetic Theory” are two major theories which were being proposed to describe the palatal impaction of canines. The management of impacted canines is important as impacted canines can lead to significant esthetic dilemmas and functional complications to the patient.<sup>5</sup> In this case report, management of impacted maxillary canine is described which was successfully performed by surgical extraction.

**Conflict of Interest:** None.

## References

1. Pritam Mohanty, Subha Soumya Dany. Maxillary Canine Impaction and Its Management – A Review.
2. Rajiv Yadav, Basanta K. Shrestha. Maxillary Impacted Canines: A Clinical Review. *Orthod J Nepal* 2013;3(1).
3. Jose Ruben Herrera – Atoche. Impacted Maxillary Canine Prevalence and Its Association with Other Dental Anomalies in a Mexican Population. *Int J Dent* 2017, Article ID 7326061.
4. Sergio Sambataro. Early Predictive Variables for Upper Canine Impaction as Derived from Posteroanterior Cephalograms. *Angle Orthodontist* 2005;75(1).
5. Bassam M Kinaia. Surgical Management of Impacted Canines: A Literature Review and Case Presentations. *J Dent Oral Biol Remedy Publications LLC* 2016;1(3):1012.
6. Pamela Uribe. Clinical predictors of maxillary canine impaction : a novel approach using multivariate analysis. *European J Orthod* 2017;153- 160.
7. Giorgio Cacciatore. Early diagnosed impacted maxillary canines and the morphology of the maxilla: a three-dimensional study. *Progress Orthod* 2018;19:20
8. Hassan Al- Zoubi. Frequency of impacted teeth and categorization of impacted canines: A retrospective radiographic study using orthopantomograms. *European J Dent* 2017;11:117 -21.
9. Sonali Sharma. Kissing mandibular canines: Serendity at its best. *J Indian Acad Oral Med Radiol* 2014;26(1).
10. Nikhar Verma and Ashima Valiathan. Prevalence and Distribution of Maxillary Canine Impaction in Orthodontic Patients. *J Indian Assoc Public Health Dent* 2006(8).
11. Anil Sharma. Management of impacted maxillary canines using the Kilroy spring: A case series. *J Indian Orthod Soc* 2016;50:177-83
12. John H. Warford. Prediction of maxillary canine impaction using sectors and angular measurement. *Am J Orthod Dentofacial Orthopedics* 2003;124:651-5.
13. Anila Charles. Surgical and orthodontic management of impacted maxillary canines. *SRM J Res Dent Sci* 2012;3(3).
14. Nisha S. Maxillary canine impaction to treat or not. *Indian*
15. Deepthi A. Management of an impacted and transposed maxillary canine. *J Indian Soc Pedod Prevent Dent* 2010;1(28).

**How to cite this article:** Vadane A, Kazi H, Surgical management of impacted maxillary canine: A short case report. *Int Dent J Student's Res* 2019;7(1):22-23.