

CASE REPORT

Case report of a displaced wisdom toothM. Kotli¹, R. Anand, M. Patel¹, N. Robinson & S. Bond¹Oral and Maxillofacial Surgery, Royal Berkshire Hospital, Reading, UK; John Radcliffe Hospitals, Oxford, UK**Key words:**

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Abstract

Displacement of teeth perioperatively is rare but well reported. Maxillary premolar and molar teeth with conical roots are most commonly displaced into the maxillary sinus and Mandibular teeth into the pterygomandibular space. Appropriate measures taken during extraction of teeth can prevent this complication which potentially may lead to severe complications especially if the teeth are displaced into infratemporal fossa, lingual space or respiratory tract. We report a case of displaced wisdom tooth into the pterygomandibular space during extraction.

Introduction

Displacement of wisdom teeth is rare but has been reported previously in the literature. Displacement of teeth can occur into tissue spaces including the maxillary sinus, the pterygomaxillary space or pterygomandibular space, inferior alveolar canal, respiratory tract^{1,2} and alimentary canal³.

Maxillary premolars and molars with conical roots are most commonly displaced into the maxillary sinus. Extrusion of upper wisdom teeth into the pterygomaxillary space or infratemporal fossa⁴ has also been reported. Lower teeth may be displaced into the lingual space, pterygomandibular space⁵ or inferior alveolar canal.

Case report

We report a case of Mandibular wisdom tooth displacement into the pterygomandibular space during the extraction.

A 27-year-old male was referred for a lower left wisdom tooth extraction. He complained of pain in the lower left posterior region for a couple of months and gradual reduction in his mouth opening.

A course of antibiotics was prescribed by his general dental practitioner with an ongoing referral to our maxillofacial department.

In addition to the above symptoms, the patient informed us that he underwent an attempted extraction of a lower left wisdom tooth which was not safely delivered during the extraction in the USA a few months previously.

Examination revealed healed soft tissues in the lower left third molar region. No pain was elicited upon palpation and no focal or fluctuant swelling present.

Rotational tomogram revealed the lower left wisdom tooth to be present in close association with the ramus of mandible (Fig. 1).

A CT Scan of midface and left neck revealed that the tooth and a fragment of tooth were present between tonsillar soft tissue and medial pterygoid space (Figs 2 and 3).

The patient was admitted for the retrieval of the wisdom tooth under a general anaesthetic.

An incision was made in the left para tonsillar region extending onto the soft palate. Both the wisdom tooth and the tooth fragment were retrieved safely and incision was closed.

The patient made an uneventful recovery with no further problems at the time of follow-up 2 weeks later.



Figure 1 Rotational tomogram showing lower left wisdom tooth in close association of the ramus of the mandible.



Figure 3 Sagittal section of CT scan showing lower left wisdom tooth along with a small tooth fragment present between tonsillar soft tissue and medial pterygoid space.



Figure 2 Axial section of a CT scan showing lower left wisdom tooth along with a small tooth fragment present between tonsillar soft tissue and medial pterygoid space.

Conclusion

Tooth displacement into the various head and neck spaces and aero digestive tract can be prevented during the extractions⁶ by being cautious and attentive.

In the event of the displacement of teeth, though it may not cause symptoms⁷ in few cases, prompt recognition and diagnosis plays a major role in management of displaced teeth, avoiding severe morbidity to the patients.

It is appropriate to start looking for the tooth in the floor of the mouth, suction bottle or in the vicinity of operating chair or table.

It is rare to aspirate or ingest a displaced tooth if the patient is awake and is undergoing surgery in a sitting position. Radiological imaging can be used to exclude aspiration or ingestion if the patient is undergoing surgery in supine position or under sedation. If access is available flexible nasendoscopy could be under

taken. It is strongly recommended to confirm the displacement of the tooth and make a prompt referral to the nearest oral and maxillofacial surgery department.

As reported by Karen K. Tiwana³ in a 10-year retrospective review, there were only 36 cases of aspiration or ingestion of different types of foreign bodies in general dental practice, suggesting its rarity.

Accidental displacement of maxillary third molars into the infratemporal fossa^{4,5} poses difficult access and severe morbidity. Maxillary molar teeth extruded into the infratemporal fossa can be accessed intra-orally by making an incision in the buccal sulcus of the maxilla. In cases where the access is inadequate different approaches can be followed, as suggested by Ioannis Dimitrakopoulos⁵ by an extra oral approach through pterygomaxillary fossa. Alternatively, one can approach the infratemporal fossa by combining Caldwell-luc and removal of posterior wall of maxillary sinus.

Mandibular molar teeth or roots displaced into the pterygomandibular space⁸ require immediate attention as some reports suggest a delay in management can lead to increased pain, swelling and trismus. As mentioned in the case report in the event of displacement into tonsillar region, an incision made in the tonsillar region extending onto soft palate could be used to access the tooth or root.

Prevention of this complication can perhaps be minimised by using a mouth mirror or lax retractor on the lingual aspect or a soft gauge over the oropharynx while extracting lower teeth and a laster's retractor can be placed distally while extracting upper wisdom teeth⁴.

References

1. Holan R. Aspiration of an avulsed primary incisor. A case report. *Int J Paediatr Dent* 2000;10:150–2.
2. Leith R, Fleming P, Redahan S, Doherty P. Aspiration of an avulsed primary incisor: a case report. *Dent Traumatol* 2008;24:e24–e26.
3. Tiwana KK. Aspiration and ingestion in dental practice. A 10-year institutional review. *J Am Dent Assoc* 2004;135:1287–91.
4. Patel M, Down K. Accidental displacement of impacted maxillary third molars. *Br Dent J* 1994;177:57–9.
5. Dimitrakopoulos L, Papadaki M. Displacement of a maxillary third molar into infratemporal fossa: case report. *Quintessence Int* 2007;38:607–10.
6. Worrall SF. Avoiding complications in minor oral surgery. In: Ward-Booth P, Hausaman J-E, Schendel S, editors: *Maxillofacial Surgery Edinburgh*: Churchill Livingstone, 1999:1591–610.
7. Von Arx D, Carr RJ. Displaced tooth mimicking a tonsillolith. *J Laryngol Otol* 1998;102:652–3.
8. Huang I-Y, Chen C-M, Chang S-W, Yang C-F, Chen C-H, Chen C-M. Surgical management of accidentally displaced third molar into the pterygomandibular space: a case report. *J Med Sci* 2007;23:370–4.