Journal of Community Medicine and Public Health Reports ISSN: 2692-9899

Case Report Volume 1 Issue 2

Case Report: Iatrogenic Displacement of Impacted Mandibular Third Molar into the Submandibular Space

Sajjad Baber

Craniomaxillofacial research center, Department of Oral and Maxillofacial Surgery, School of Dentistry, Resident, International Campus, Shariati hospital, Tehran University of Medical Sciences, Tehran, Iran

***Corresponding author:** Sajjad Baber, Craniomaxillofacial research center, Department of Oral and Maxillofacial Surgery, School of Dentistry, Resident, International Campus, Shariati hospital, Tehran University of Medical Sciences, Tehran, Iran

Received date: 14 June 2020; **Accepted date:** 30 June 2020; **Published date:** 07 July 2020

Citation: Baber S (2020) Case Report: Iatrogenic Displacement of Impacted Mandibular Third Molar into the Submandibular Space. J Comm Med Pub Health Rep 1(2): https://doi.org/10.38207/jcmphr100229

Abstract

Removal of maxillary and mandibular third molars are one of the most frequently carried out procedures in the oral cavity. Complications associated with third molar extraction include bleeding, delayed healing, dry socket, and nerve injury, damage to associated teeth, infection, and fracture of the mandible. Sometimes accidental displacement of the fractured roots or teeth into the submandibular, pterygomandibular the maxillary sinus, or the lateral pharyngeal space and sublingual spaces occur. In this rare case, the mandibular third molar in a 27-year-old male patient on the left side is accidentally displaced into the submandibular space. The patient came to us with no signs of infection or trismus. The displaced tooth is recovered under general anesthesia.

Keywords: mandibular third molars, submandibular space, displacement, general anesthesia

Introduction

The surgical extraction of impacted third molars is one of the most common operations, which is performed by oral and maxillofacial surgeons and dentists as well. Sometimes, the surgical removal of third molars results in a few major and minor complications which include bleeding, delayed healing, dry socket, nerve injury, damage to associated teeth, infection, and fracture of mandible **[1-3]**.

Accidental displacement of the fractured roots or teeth into the submandibular, pterygomandibular the maxillary sinus, or the lateral pharyngeal space and sublingual spaces results in pain, infection, abscess, and trismus. Although rare, a few cases of accidental dislodgement into the sublingual, submandibular, pterygomandibular, and lateral pharyngeal spaces have been reported in literature. Predisposing factors for this complication include improper surgical planning, poor clinical and/or radiological assessment, a disto lingual positioning of the tooth, fenestration of the lingual cortical plate with root exposure, application of uncontrolled or excessive force, and excessive manipulation **[4-6]**.

Clinical Case

Here we present a case of a 27-year-old male with the complaint of pain on the left side of the mandible. Upon history taking, he went to the dentist for extraction of the mandibular third molar on the left side around 1 year ago **(Figure 1)**. During this surgical procedure, the practitioner had suddenly realized that the tooth has disappeared in a surrounding space. He referred the patient for further management. On radiographic examination i.e. OPG along with CBCT, it was revealed that the tooth was displaced into the submandibular space on the left side of the mandible. An assessment of the relative opacities of the tooth and bone revealed the tooth to be lingually placed **(Figure 2)**. It is important to mention that he came to us after 1 year. The socket of the extracted tooth appeared to have healed satisfactorily. Both intraoral and extraoral examinations did not reveal any palpable mass within the soft tissues.

Under general anesthesia, the patient was scheduled for removal of the displaced tooth. Buccal mucoperiosteal flap with envelope incision and lingual mucoperiosteal flaps were reflected. The displaced tooth was approached. Some bone on the buccal and lingual side was removed with the help of round bur. The tooth was retrieved and removed **(Figure 3a and 3b)**. Soft tissues were sutured with the help of Vicryl 4.0 sutures. Antibiotics were prescribed and the patient was discharged on the other day. After 3 months, the patient does not have lingual nerve paraesthesia **(Figure 4)**.

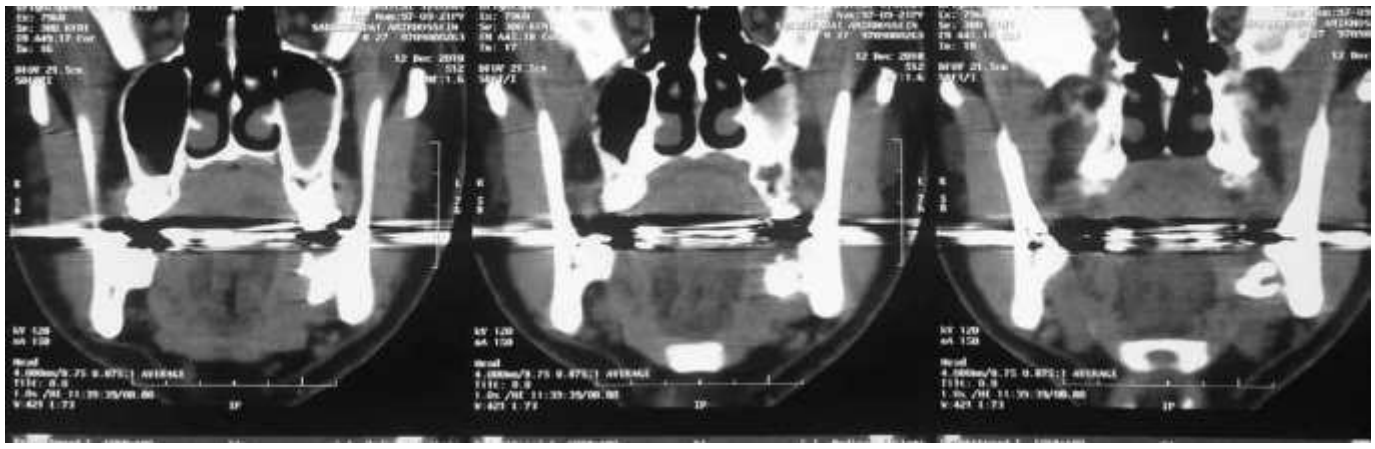

Figure 1: Showing displacement of left third molar into submandibular space

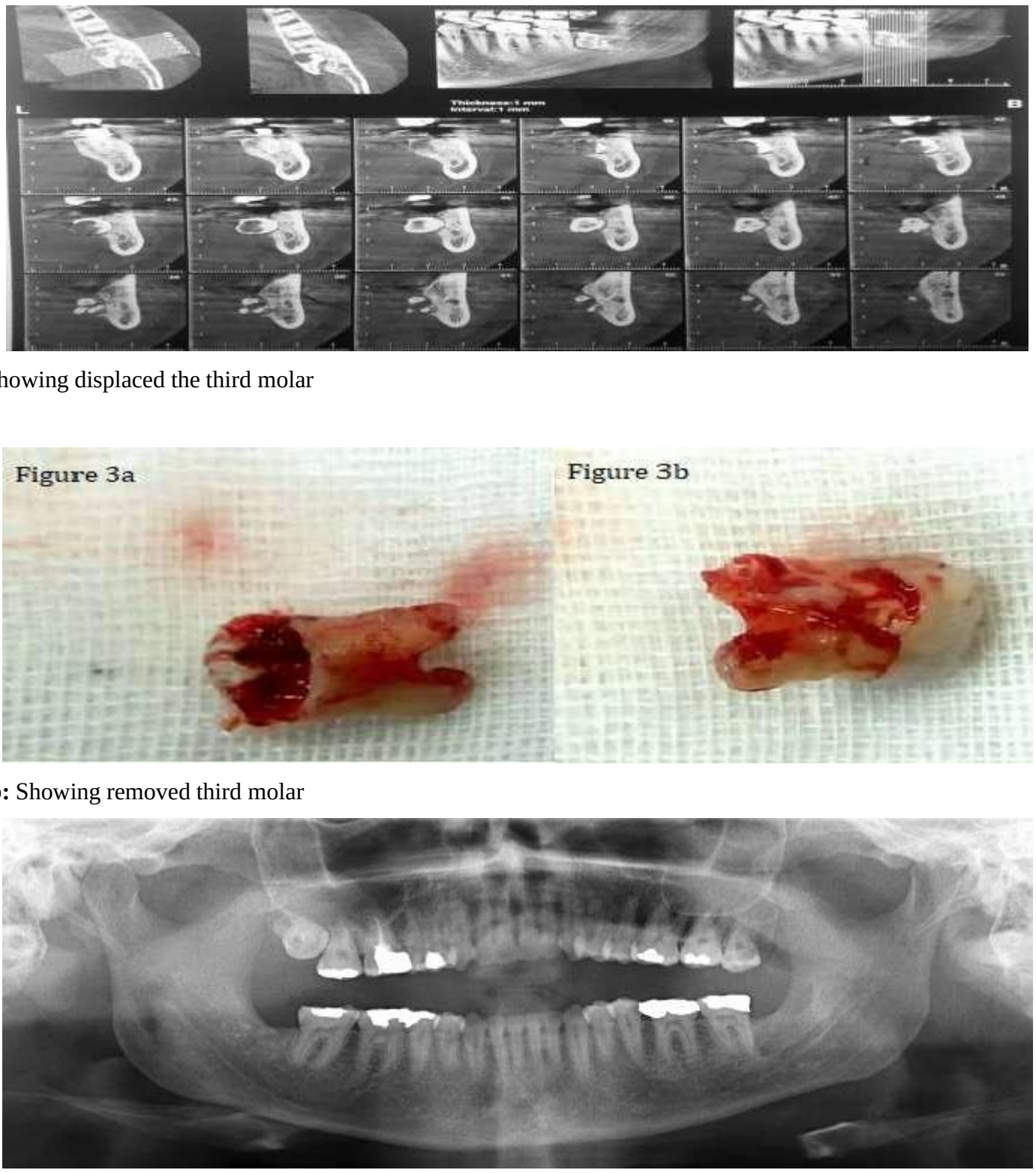

Figure 2: CBCT showing displaced the third molar

Figures 3a and 3b: Showing removed third molar

Figure 4: Post op OPG

Discussion and Conclusion

The first report of a displaced third molar tooth or root fragment into submandibular space appeared in literature in 1958. Until now few case reports have surfaced underlining the rarity of this complication of tooth extraction. Accidental displacement of the fractured roots or teeth into the submandibular, pterygomandibular the maxillary sinus, or the lateral pharyngeal space and sublingual spaces have emerged. Trained experienced surgeons have had a lower incidence of complications than general dentists **[7,8]**.

Excessive undue forces and mishandling of the tooth during elevation and anatomical defects such as weak lingual plate and tooth placed too lingually carries the risk of displacement of the impacted tooth. A displaced tooth may remain asymptomatic for a long period as in this case the tooth was displaced 1 year ago but the possibility of infection and pain can occur in any stage of life **[9]**.

Extraction of third molars should always be performed with proper visual access to the extraction site. When there is a risk of the displacement of the tooth/root fragments, it is important to apply the finger pressure over the lingual periosteum that can prevent their

displacement into adjacent anatomical spaces. Also, avoid complications such as nerve damage **[10]**.

A lot of dentists consider the operation relatively "simple." However, many case reports reveal the complications and life-threatening consequences of this relatively "simple" procedure. For general dentists, if the third molar tooth is displaced into any space, then the patients must be urgently referred to a maxillofacial surgeon. If such an incident occurred to a maxillofacial surgeon while performing a surgical procedure, the displaced tooth should be retrieved as soon as possible **[11]**.

References

1. Huang IY, Chen CM, Chang SW, Yang CF, Chen CH, et al. (2007) Surgical management of accidentally displaced mandibular third molar into the pterygomandibular space: a case report. The Kaohsiung J Med Sci 23(7): 370-374.
2. Woldenberg Y, Gatot I, Bodner L (2007) Iatrogenic mandibular fracture associated with third molar removal: Can it be prevented? Medicina Oral, Patología Oral y Cirugía Bucal (Internet) 12(1): 70-72.
3. Olusanya A, Akadiri O, Akinmoladun V (2008) Accidental displacement of mandibular third molar into soft tissue: a case report. African J Med Med Sci 37(1): 77-80.
4. Huang IY, Wu CW, Worthington P (2007) The displaced lower third molar: a literature review and suggestions for management. J Oral Maxillofac Surg 65(6): 1186-1190.
5. Goldberg MH, Nemarich AN, Marco WP (1985) Complications after mandibular third molar surgery: a statistical analysis of 500 consecutive procedures in private practice. J Am Dent Assoc 111(2): 277-279.
6. de Boer MP, Raghoebar GM, Stegenga B, Schoen PJ, BoeringG (1995) Complications after mandibular third molar extraction. Quintessence Int 26(11): 779-784.
7. Jolly SS, Rattan V, Rai SK (2014) Intraoral management of displaced root into submandibular space under local anaesthesia–A case report and review of literature. Saudi DentJ 26(4): 181-184.
8. Brauer HU (2009) Unusual complications associated with third molar surgery: a systematic review. Quintessence Int 40(7).
9. Durmus E, Dolanmaz D, Kucukkolbsi H, Mutlu N (2004) Accidental displacement of impacted maxillary andmandibular third molars. Quintessence Int 35(5): 375-377.
10. Yalcin S, Aktas İ, Emes Y, Atalay B (2008) Accidental displacement of a high-speed handpiece bur during mandibular third molar surgery: a case report. Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology, and Endodontology 105(3): e29-e31.
11. Yeh CJ (2002) A simple retrieval technique for accidentally displaced mandibular third molars. J Oral Maxillofacial Surg 60(7): 836-837.