Journal of Advanced Medical and Dental Sciences Research

@Society of Scientific Research and Studies

Journal home page: www.jamdsr.com doi: 10.21276/jamdsr UGC approved journal no. 63854

(e) ISSN Online: 2321-9599; (p) ISSN Print: 2348-6805

CASE REPORT

Displaced Mandibular Root into the Submandibular Space: A Case Report

Nitin Bhagat[1], Rajat Gupta[2], Sachin Kumar[3], Prabhakar Gupta[4] , Rohit Sharma[5], Shinja Dixit[6]

[1]Reader , [2]Senior Lecturer, [3]Reader, [4]Senior lecturer, [5]Senior lecturer, [6]PG student, Department Of Oral and Maxillofacial Surgery, Sharda School of Dental Sciences, Sharda University, Knowledge Park IV, Greater Noida

ABSTRACT:

Displacement of the tooth/root piece into adjacent anatomical spaces is a rare but a possible complication of exodontias. When an incident like this occurs, the case should always be referred to an oral and maxillofacial surgeon for a prompt removal of the displaced tooth/ root piece to prevent further complication. Mandibular molar teeth have chances of being pushed into submandibular, sublingual, pterygomandibular and cervical spaces. This article is about a case of displaced root of mandibular first molar into the submandibular space and its management.

Key words: Pterygomandibular space, submandibular space, Mandibular Root.

Received: 11 January, 2019 Revised: 28 January, 2019 Accepted: 10 February, 2019

Corresponding author: Dr. Sachin Kumar, Reader, Dept. Of Oral and Maxillofacial Surgery, Sharda School of Dental Sciences, Sharda University, Knowledge Park IV, Greater Noida, Uttar Pradesh, India

This article may be cited as: Bhagat N, Gupta R, Kumar S, Gupta P, Sharma R, Dixit S. Displaced Mandibular Root into the Submandibular Space: A Case Report. J Adv Med Dent Scie Res 2019;7(2):41-42.

INTRODUCTION:

Dental extractions are frequently performed procedures in the field of dentistry. Displacement of the tooth/root piece during extraction into adjacent spaces is a less anticipated complication as compared to others. Displacement of maxillary 1st molar into the maxillary sinus is the most commonly displaced tooth in the oral cavity. Mandibular molar teeth have chances of being pushed into submandibular, sublingual, pterygomandibular and cervical spaces.[1] Apart from cases with atypical anatomical considerations like distolingual tooth inclination or a thin lingual cortical plate, displacement of mandibular molar teeth can occur due to application of uncontrolled or excessive force, excessive manipulation, improper surgical planning/ clinical or radiological assessment. If the root piece is not removed it may move into pharyngeal spaces and may cause serious complications. The symptoms in such cases can vary, as some patients remain totally asymptomatic, whereas some have persistent pain, swelling and trismus requiring a prompt removal by a specialist.

CASE REPORT:

A 35-year-old male patient reported to the department of Oral and Maxillofacial Surgery, Sharda University with the complaint of pain and swelling oh his right side of floor of the mouth. On taking patient's history, he revealed that he had undergone extraction of mandibular first molar by a general dentist three days ago. The swelling was palpated to be a hard mass during clinical examination. Two dimensional radiographs were not sufficient in this case hence, we ordered a cone beam computed tomography (CBCT). CBCT revealed a radiopaque mass present which was similar in appearance to the mandibular molar root in the right submandibular space [Figure 1]. The surgical procedure under local anesthesia was explained to the patient, who agreed for it. For the procedure, an inferior alveolar, lingual nerve block along with local infiltration was given using 2% lignocaine with adrenaline. An intra oral incision of 1.5 cm was made medial to the submandibular duct on the floor of the mouth. Mylohyoid muscle was exposed and blunt dissection was done through it to locate the displaced root piece in the submandibular space. Root retrieval was done using artery forcep. Mylohyoid muscle was allowed to re-approximate itself and the incision closure was done using silk. The patient was prescribed antibiotics for 1 week. A post operative OPG was done to confirm the retrieval of the root from submandibular space. A follow up after 1 week revealed no complications and the wound healing was uneventful.

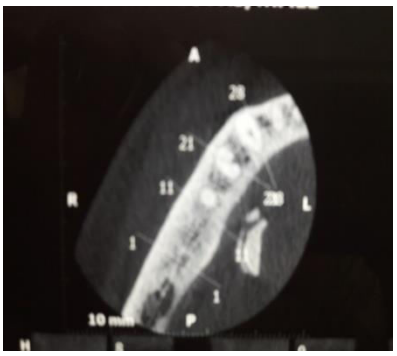

Figure 1: CBCT showing high density area

Figure 2: Intraoral incision

Figure 3: Retrieved root fragment

DISCUSSION:

A tooth lost in the submandibular space is not easy to anticipate as it is a rare complication of extraction. The most common cause of mandibular tooth displacement is lingual plate fracture or perforation during extraction.[2] In this case, we speculate that the tooth broke during the extraction and got dislodged while attempts were made to remove the root piece using the elevator. Inadequate pressure applied with uncontrolled movement can move the root into deep anatomic spaces and attempts to remove the fragment with inadequate visibility can further lead to even more displacement of the tooth or root piece.[3] symptoms of displaced root may depend on the size of tooth, it's location and association with infection. Delay in retrieval may cause complications like foreign body reaction, infection or further migration of the tooth. Thus, in this case surgical retrieval of the root piece was done immediately by an intraoral approach. There are many approaches described in the literature for intraoral removal of displaced root piece. Approaching the displaced root piece intraorally under local anesthesia is the easiest and least invasive technique for retrieval from lingual pouches. In our case a good visualization was gained by raising the lingual periosteal flap but it may not provide a good access in other cases. An extraoral approach or a combination of extraoral and intraoral may also be used as required depending on location and degree of displacement into deep spaces.[3]

To summarize, when a tooth/root fragment gets displaced into deep spaces the patient should be informed about the incident and the possible complications associated with it. Although there are various other complications of exodontia but displacement of tooth/root fragment is the least expected out of them and when such a complication occurs, the patient should always be referred to an oral and maxillofacial surgeon for a prompt removal.

REFRENCES

1. Nusrath and Banks, 2010; Gay-Escoda et al., 1993.
2. Brauer HU. Unusual complicationsassociated with third molar surgery. Quintessence Int. 2009;40:565-72
3. Yeh CJ. A simple retrieval technique for accidentally displaced mandibular third molar. J Oral and Maxillofacial Surg. 2002;60:8367-7.
4. Jolly SS. Intraoral management of displaced root into submandibular space under local anesthesia-A case report and review of literature. The Saudi Dental J. 2014;26:181-184
5. Howe, G.L., 1958. Tooth removed from lingual pouch. Br. Dent. J. 104,283.

Source of support: Nil **Conflict of interest:** None declared