Supernumerary tooth impacted close to the nasal cavity: Case report

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Abstract

Introduction: In Latin America, the prevalence of mesiodens is 1.7%. Mesiodens impacted towards the base of the nostril can cause complications such as: pain, epistaxis, rhino sinusitis, nasal obstruction and congestion and even eruption through the nostril.

Case report: A 7-year-old male patient with no clinical pathological data came for consultation due to interference in occlusion caused by a palatine erupted mesiodens. A radiographic finding was a second mesiodens in the anterior maxillary area.

Diagnosis: Inverted conical mesiodens near the floor of the nasal cavity.

Treatment: Surgical treatment by means of a vestibular incision in the anterior maxillary area.

Results: The procedure was performed under local anesthesia, surgical procedure of the impacted tooth, low speed hand piece was used, the dental organ was removed and stitches were placed.

Conclusion: Early detection of mesiodens is of utmost importance since timely treatment allows avoiding future complications.

Keywords: Mesiodens, supernumerary tooth, impacted, surgery

Introduction

Supernumerary teeth can cause various complications, such as rotation of auxiliary teeth, spacing, risk of delayed eruption, cyst formation, etc. Factors, such as the shape and direction of the supernumerary tooth, influence the risk of these complications [1]. The prevalence of impacted incisors in the anterior area of the maxilla is 0.2% to 0.5% [2]. In Latin America, mesiodens are the most frequent supernumeraries, with a prevalence of 1.7% [3]. Dental eruption of patients with supernumerary teeth is faster than chronological age, compared to patients without supernumerary teeth [4]. Mesiodens are the most frequent etiology of diastases at the midline level [5]. Impacted teeth inverted towards the base of the nasal cavity are present in 9 to 67% of cases [6]. They are usually asymptomatic; however, they can cause complications such as pain, epistaxis, rhino sinusitis, nasolacrimal duct obstruction, nasal obstruction and congestion, deviation and perforation of the nasal septum, abscess of the nasal septum. It can even erupt through the nostril [7]. Nasal mesiodens are rare, so early diagnosis and treatment are extremely important to avoid future complications. The objective of this article is to analyze a case report about an impacted supernumerary tooth near the nasal cavity extracted by surgery.

Case report

A 7-year-old male patient, with no clinical pathological data, came for consultation because he presented an erupted mesiodens in the palate. The patient did not present any symptoms, however, the supernumerary caused interference in occlusion. Initial intraoral radiographs were taken, where there was a radiographic finding of a second mesiodens in the anterior region of the maxilla.
Diagnosis
Due to the above mentioned, a cone-beam computed tomography (CBCT) study was indicated for the precise location of the inverted conical supernumerary tooth. It was found to be impacted near the nasal fossa.

Treatment
Local anesthesia was placed in the anterior palatal and vestibular areas of the dental organs 53 to 63. Simple extraction of the erupted mesiodens was performed and then an incision was made in the vestibular area of the maxillary incise area with a scalpel, a low speed hand piece was used to uncover the tooth, a syndestectomy was performed, extraction of the mesiodens was performed, foam gel was placed and stitches were placed.

Results
After infiltrative local anesthesia, the erupted mesiodens was exodonticated. Then, an incision was made in the vestibular area of the maxillary incise area with a number 15 scalpel. 171, 172 and 7 ball drills were used to uncover the impacted mesiodens. Likewise, a straight punch was used to dislocate the dental organ. Once the tooth was removed, foam gel was placed and 4-0 silk suture thread was used for simple stitches. Postoperative indications for surgery were given and naproxen sodium, amoxicillin and dexamethasone were prescribed.
Conclusion
Early detection of mesiodens is of utmost importance because timely treatment can prevent future complications. It is also important to rely on auxiliary methods in order to carry out a more precise treatment, especially when they are impacted.

References

Discussion
In this case the supernumeraries were hereditary, which is pointed out by a theory of the etiology of supernumerary teeth [8]. It is important to note that two of the patient’s relatives (a brother and a first cousin) also had erupted supernumeraries. The extraction of the erupted mesiodens and surgery of the impacted mesiodens allowed improving the patient’s occlusion and avoiding complications.

CBCT was used as an auxiliary method [9] for the detection and diagnosis of supernumerary teeth. In the present case, the patient had no symptomatology, which is considered to be under observation [10]. However, it caused interference in occlusion. In addition, some authors agree that when a mesiodens is extracted at an early age, it causes fewer complications [11]. The procedure had no postoperative complications, as in the cases of other authors [12].