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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 mesiondens 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.

Fig 1: Photograph of the upper arch, prior to treatment

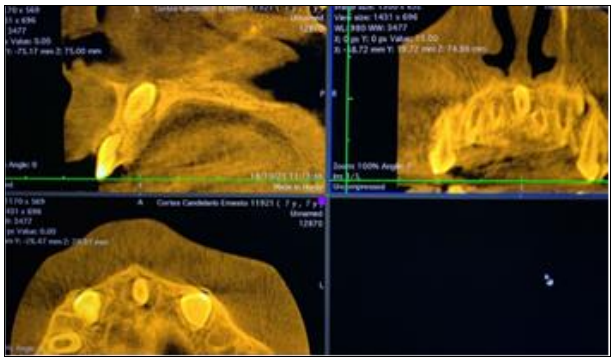

Fig 2: CBCT image

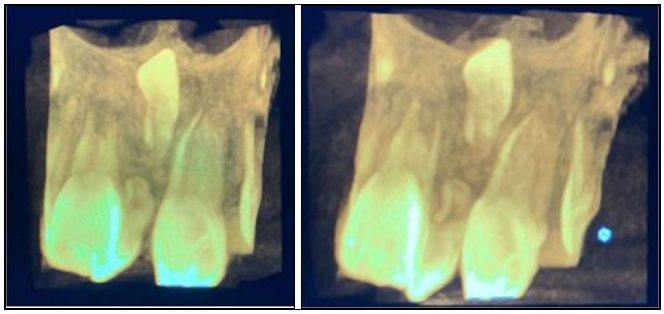

Fig 3: CBCT frontal view

Fig 4: Photograph after the extraction of the erupted mesiodens

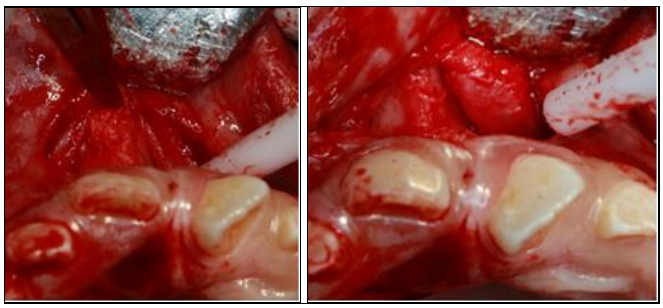

Fig 5: Photograph of incision in the maxillary anterior fornix

Fig 6: Luxation of the mesiodens through the use of a small straight punch

Fig 7: Photograph where the mesiodens can be observed, after the use of a low speed hand piece

Fig 8: Photograph of the suture with 4-0 silk thread

Fig 9: Photograph of the 2 extracted mesiodens with conical shape

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 [11].

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

1. Park SY, Jang HJ, Hwang DS, Kim YD, Shin SH, Kim UK, *et al*. Complications associated with specific characteristics of supernumerary teeth. Oral Surg Oral Med Oral Pathology Oral Radiology. 2020;130(2):150-155.
2. Pescia R, Kiliaridis S, Antonarakis GS. Spontaneous eruption of impacted maxillary incisors after surgical extraction of supernumerary teeth: a systematic review and meta-analysis. Clin Oral Investing. 2020;24(11):3749-3759.
3. Tetay-Salgado S, Arriola-Guillén LE, Ruíz-Mora GA, Aliaga-Del Castillo A, Rodríguez-Cárdenas YA. Prevalence of impacted teeth and supernumerary teeth by radiographic evaluation in three Latin American countries: A cross-sectional study. J Clin Exp Dent. 2021;13(4):e363-e368.
4. Duman S, Vural H, Duman SB. Supernumerary Teeth and Dental Development. J Craniofac Surg. 2021;32(5):1826-1829.
5. Nuvvula S, Ega S, Mallineni SK, Almulhim B, Alassaf A, Alghamdi SA, *et al*. Etiological Factors of the Midline Diastema in Children: A Systematic Review. Int. J Gen Med. 2021;14:2397-2405.
6. Canoglu E, Er N, Cehreli ZC. Double inverted mesiodentes: report of an unusual case. Eur J Dent. 2009;3(3):219-23.
7. Hauer L, Hrusak D, Jambura J, Gencur J, Hosticka L, Andrle P, *et al*. Modified maxillary vestibular approach with subperiostal intranasal dissection for surgical extractions of mesiodentes impacted in the floor of the nasal cavity. J Craniomaxillofac Surg. 2019;47(1):1-5.
8. Garvey MT, Barry HJ, Blake M. Supernumerary teeth--an overview of classification, diagnosis and management. J Can Dent Assoc. 1999;65(11):612-616.
9. Ahammed H, Seema T, Deepak C, Ashish J. Surgical Management of Impacted Supernumerary Tooth: A Case Series. Int J Clin Pediatric Dent. 2021;14(5):726-729.
10. Choi YS, Kim YD, Bae CH, Na HG. Intranasal supernumerary tooth in a child: a case report. Turk J Pediatric. 2021;63(4):731-734.
11. Thomaidis V, Tsoucalas G, Fiska A. Rotated mesiodens in children. An immediate surgical removal or active monitoring? Clin Case Rep. 2019;7(12):2577-2578.

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