

Introduction

A mesiodens is a supernumerary tooth located in the midline between the two maxillary central incisors. The prevalence of supernumerary teeth is reported to be from 1-3% of the population, with a predilection to males. The etiology of supernumerary teeth is unclear. The presence of mesiodens often leads to a sequelae of consequences that can include over retention of primary teeth, impaction or delayed eruption of permanent teeth, dilaceration or abnormal root development, and abnormal crowding.

Case Presentation

A 6-year-old Hispanic male was an active patient at UCSF Pediatric Dental Clinic. He was a normal healthy child with a noncontributory medical history. Intra-oral and radiographic examination revealed presence of early mixed dentition, an inverted and labially positioned mesiodens, congenitally missing #20 and #4, and caries on teeth #A, B, D, F, G, H, I, J, K, L, S, T.

CLINICAL AND RADIOGRAPHIC FINDINGS

Extraoral: Negative for swelling, asymmetry, lymphadenopathy, and TMD

Intraoral Soft Tissue: Hard/soft palate, floor of mouth, tongue, and oral mucosa: WNL.

Intraoral Hard Tissue: Mixed dentition

Intraoral Hard Tissue - Mixed dentition. Caries noted on teeth #A,B, E, F, G, H, I, J, L, K, S, T. #3, 14, 30 fully erupted. #19 partially erupted. Radiographic findings: Inverted mesiodens, causing delayed eruption of #9. Congenitally missing #4 and #20. #K caries into/close to pulp, but without radiographic radiolucency at apex

CBCT Findings: Supernumerary tooth (mesiodens) located between the unerupted teeth #8, 9, 10. It is inverted, with the crown in close proximity to the nasal floor. The crown of the mesiodens is in close contact with the crown of teeth #8 and 9, and its root close to the crown of #10. #9 appears rotated.



Fig. 1 Pre-op Intraoral Photos

Intraoral photos reveal extensive caries on primary dentition and exfoliated #N and #Q.

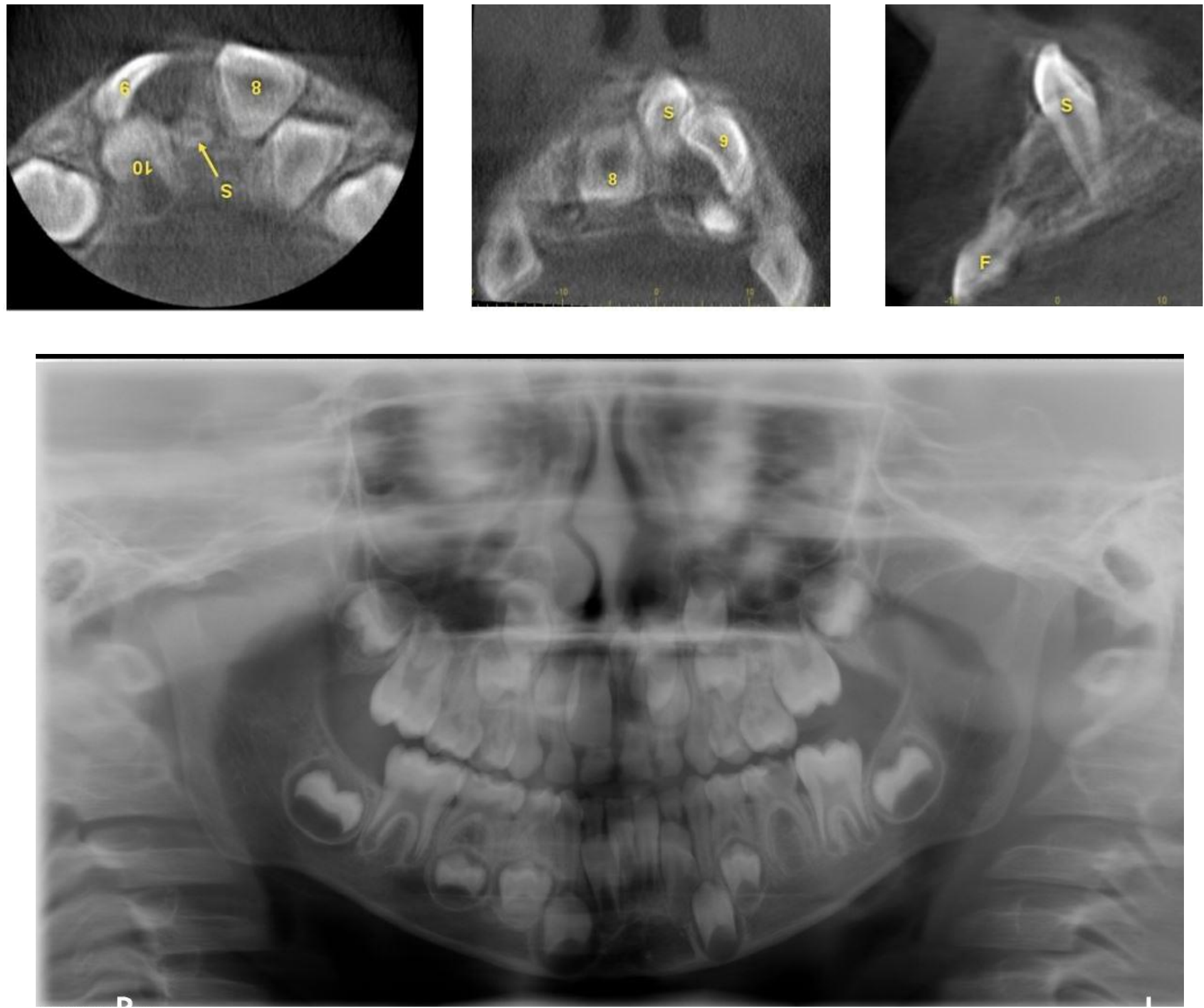


Fig. 2 Pre-op CBCT and Panoramic Radiographs

CBCT reveals labially positioned mesiodens. Radiographs revealed presence of early mixed dentition, an inverted and labially positioned mesiodens, congenitally missing #20 and #4, and caries on teeth #A, B, D, F, G, H, I, J, K, L, S, T.

ADDITIONAL FINDINGS

Oral Hygiene - Fair. TB 2x/day, floss 2-3x/week, localized mild plaque noted
Caries Risk - High due to active caries, frequent snacking (4x/day), and consumption of juice/sugary beverages (2-3x/week)

Treatment Plan

- 1) Holding care: SDF placement on teeth #A, B, E, F, G, H, I, J, K, L, S, T
- 2) Restorative work completed under GA:
 - Resin crown #H.
 - Sealants #3, 14, 19, 30
 - Stainless steel crowns #A, B, I, J, L, S, T.
 - MTA pulpotomies #B, I
 - Simple extractions # D, F, G, K
 - Surgical extraction #58 (A labial gingival periosteal flap was made from mesial of tooth #C to mesial of tooth #H with vertical incision. #58 was exposed from maxilla and extracted with an elevator. Eight 3-0 plain gut sutures placed to close #C to H gingival periosteal flap)
- 3) Orthodontic consultation due to congenitally missing #4 and #20

ORTHODONTIC TREATMENT

Recommendation was made to defer until phase two orthodontic treatment:

- Orthodontic consultation due to congenitally missing #4 and #20

PREVENTIVE REGIMEN

- Oral hygiene instruction, fluoridated toothpaste, diet counseling, 3mo recall interval

Conclusion

The majority (80%) of mesiodens are located palatally². In this case, the mesiodens is located labially. With the help of a CBCT and pre-operative radiographs, we were able to identify the exact location of the mesiodens before surgery. This case highlights the importance of good pre-operative radiographs, especially taking a CBCT as a pre-op diagnostic tool.

REFERENCES

1. Mukhopadhyay, S. "Mesiodens: a clinical and radiographic study in children." *Journal of the Indian Society of Pedodontics and Preventive Dentistry* vol. 29,1 (2011): 34-8. doi:10.4103/0970-4388.79928
2. Henry, R J, and A C Post. "A labially positioned mesiodens: case report." *Pediatric dentistry*vol. 11,1 (1989): 59-63.

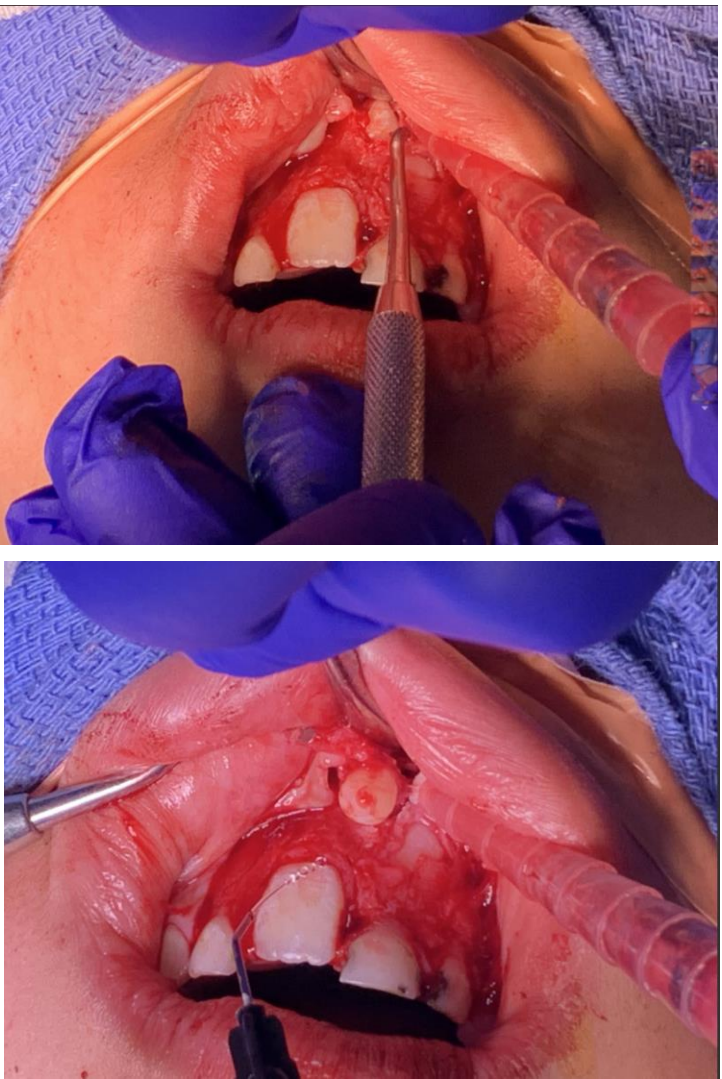


Fig. 3 Intraoral photos of surgical extraction of labially positioned mesiodens