

Treatment of Extruded Maxillary Incisors: A Case Report

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Introduction

Maxillary central incisors are the teeth most likely to suffer from traumatic dental injury (73.5%)¹. Treatment may vary depending upon provider and patient wishes.

Case Report

A 9 year old hispanic female presented as an emergency patient to the University of Nevada, Las Vegas (UNLV) Pediatric Dental Residency Clinic on November 30th, 2022. The patient presented one hour after a fall that resulted in a traumatic dental injury. Patient's guardian reported no medical conditions, medications or allergies.

Clinical Exam

Patient and parent reported no loss of consciousness and no nausea after the fall.

Soft tissue exam: revealed a five mm laceration on the midline of the patient's maxillary lip and no swelling or tenderness upon palpation on the soft tissue.

Hard tissue exam: revealed #9 extrusion and incisal fracture. No other occlusal trauma noted.

Radiographic examination: revealed a one mm extrusion of #9 and a DIFL fracture with a one mm pulpal exposure.

Treatment

At the initial appointment, patient was anesthetized with 1.7mL of lidocaine 2% 1:100,000 epinephrine, cotton roll isolation was used due to patient's inability to tolerate a rubber dam. TheraCal LC was placed over the exposed pulp tissue. After etching and bonding, Revolution Formula 2 flowable composite was placed as a temporary restoration.

A stainless steel wire splint was passively bonded from canine to canine (figure 2)

December 9th, two weeks after initial presentation (figure 3), tooth #9 DIFL was restored with composite and the splint was removed.

January 9th, one month post op (figure 4), tooth #9 responded vital to cold testing, and was sensitive to percussion, while tooth #8 responded normal.

February 27th, three months post op (figure 5), a periapical radiograph revealed a 3.8x4 mm radiolucency at the apex of tooth #9. Patient reported occasional spontaneous nighttime pain. Amoxicillin was prescribed and root canal therapy for #9 was treatment planned for the patient's next appointment.

Conclusion

Pulpal necrosis is known to occur 61.9% of the time after the tooth experiences multiple traumatic events². This case highlights the importance of immediate dental care following a traumatic dental injury. Education, follow up and oral hygiene should be re-enforced for the best results.



Figure 1: Patient presentation to clinic.



Figure 2: Splint Application



Figure 3: Two week follow up



Figure 4: One month follow up



Figure 5: Three month follow up

References

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