

# Management of Trauma to Alveolar Fracture of Mandibula: Case Report

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#### **INTRODUCTION**

- ✓ Alveolar process fractures are the result of blunt or penetration of trauma.
- ✓ Treatment of jaw fractures in children differs from adults; since growth continues and there are teeth germs in the alveolar bone.
- ✓ And wrong treatment planning may inhibit the development process.

### CASE REPORT

- A 5-year-old boy was applied to the clinic after four hours after fall accident, which resulted in the fracture of the mandibular alveolar process with substantial dislodgement of the buccal cortical bone and avulsed right primary laterally incisors.
- In the clinical examination, buccal segment of the alveolar bone was slightly mobile on palpation.





## TREATMENT

- Immediate treatment was planned as repositioning of mobile part of alveolar process and raising of the occlusion of affected teeth under local anesthesia.
- Then nutritional and brushing advices were given to child and parents.
- Splint application couldn't be performed due to noncooperation of child.
- The healing of the soft tissue was observed after one week and completed after two months, and the child was followed up in 1,2,4,6,12 and 18 months.



Initial Treatment

18-Month Follow Up





After 18 months, there was no sign of any pulpal inflammation or necrosis and infection, Moreover, there was no any alveolar bone resorption and, external or internal resorption of the root. The affected primary incisors remained asymptomatic until natural exfoliation.



- ✓ At 18 months, the eruption of the permanent successors was almost complete with the absence of any sequel from prior trauma.
- Reduction of the fractures and stabilization was achieved without damaging the teeth and without the need for general anesthesia.

### REFERENCES

- Andreasen JO, Andreasen FM, Andersson L. Textbook andcolor atlas of traumatic injuries to the teeth, 4th edn. Copen-hagen: Munksgaard; 2007
- Khalaf MS, Khalaf BS, Abass SM. Management of trauma to the anterior segment of the maxilla: alveolar fracture and primary incisors crown and root fracture. J Bagh Coll Dent [Internet]. 2021 Jun. 11 [cited 2023 Apr. 3];33(2):16-20.
- Akin, A., Uysal, S., & Cehreli, Z. C. (2011). Segmental alveolar process fracture involving primary incisors: treatment and 24-month follow up. Dental traumatology : official publication of International Association for Dental Traumatology, 27(1), 63-66.











