

CASE STUDY

IMMEDIATE REPLACEMENT OF DENTAL ELEMENT AND FOLLOW-UP OF THE CASE FOR 18 YEARS –CASE REPORT

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ABSTRACT

Introduction: Dental avulsion is understood as the complete displacement of the dental element from which it is housed, in fact, in the alveolus, after suffering a traumatic injury. The therapy after dental avulsion depends on clinical factors associated with the trauma, such as: periodontal ligament conditions, rhizogenesis and period that the tooth passed outside the alveolus.

Case Report: Patient M.F.B.N, feoderma, 20 years old, attended a private clinic as a matter of urgency. The same had the dental element 22 avulsed inside a glass without containing liquid of any nature and reported that the tooth avulsion after a bicycle accident. A very minute clinical and radiographic examination was performed in order to find fractures and lacerations in the adjacent tissues. A semi-rigid fixation with wire 0.3 mm was maintained maintaining the dental element in the alveolus and the accompaniment.

Final Considerations: Through the results obtained in this study, corroborates that it is necessary the endodontic treatment after the replantation, since the teeth develop the pathophysiological characteristics that it needs of endodontic intervention.

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INTRODUCTION

Dent alveolar injuries have a higher incidence in the population from 2 to 5 years, which corresponds to the period of motor coordination development, since infants begin to walk and run in this age group. 30% of the children suffer some type of dental trauma, where in the great majority it affects the upper central incisors (Andreasen, 1993). The dental avulsion is understood as the complete displacement of the dental element from where it is housed, that is, in the alveolus, after having suffered a traumatic injury.

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This lesion may be classified as uncommon and complex, the latter being for causing damage to the periodontal tissues (Andreasen, 1995). When the tooth is expelled, there is rupture of the gingival epithelium, damage to the cementite and alveolar bone and disarticulation of the fibers of the periodontal ligament. Studies show that the expulsion of the dental element due to trauma has an incidence ranging from 1% to 16% of all trauma injuries in the permanent dentition, and 7% to 13% in injuries caused by trauma in the deciduous dentition. Dental avulsion is more frequent in men than in women (Cohen, 1994 and Davidovich, 2008). Dental replantation occurs when the expelled tooth is replaced in the alveolus, this being by trauma or when an extraction of the wrong dental element occurs. As contraindications, we have the

general health of the patient, the integrity of the alveolar structures and the inflammatory process elevated at the site of the lesion, the latter being assessed as an absolute contraindication (Sahin, 2008). The therapy after dental avulsion depends on clinical factors associated with the trauma, such as conditions of the periodontal ligament, rhizogenesis and period that the tooth passed outside the alveolus. The dental elements receive irrigation from both the pulp and the pericementaria, which the last mentioned most of the time guarantees the irrigation of the replanted tooth. The extra alveolar period is a universal criterion that recommends less time to get better replant the prognosis, as it preserves the periodontal tissues and prevents bacterial contamination, consequently decreasing the chance of root resumption (Moura e Costa, 2004).

alternatives such as milk and saline. The storage media serves to prevent high-input microbial and the integrity of the periodontal ligament (Graziani, 1995). The objective of this study is to present, through the report of a clinical case, the clinical characteristics and the therapeutic approach of an avulsion dental element.

Case Report

Patient M.F.B.N, feoderma, 20 years old, attended a private clinic as a matter of urgency. He had the dental element 22 avulsed inside a glass without containing liquid of any nature and reported that the tooth avulsion after a bicycle accident. A very detailed clinical and radiographic examination was performed in order to find fractures and lacerations in the

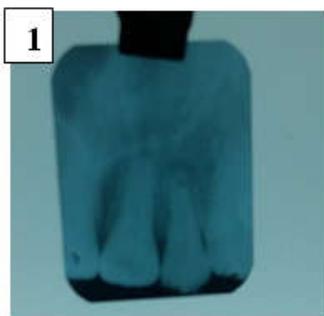


Fig.1.(1° Queries- 11/07/1998)

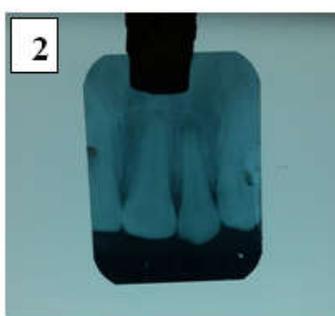


Fig.2.(2° Queries - 15/08/1998)



Fig.3. (3° Queries - 21/11/1998)



Fig.4.(4° Queries- 23/01/1999)

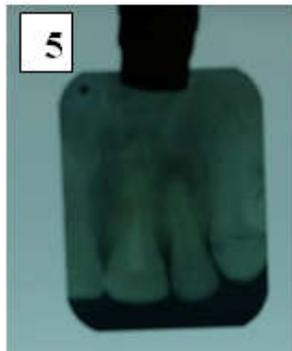


Fig.5.(5° Queries- 07/03/2002)

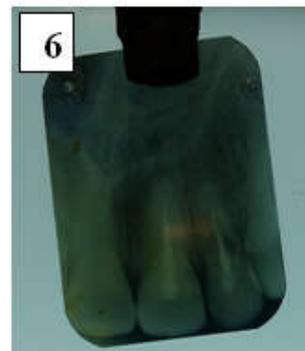


Fig.6.(6° Queries-07/2006)

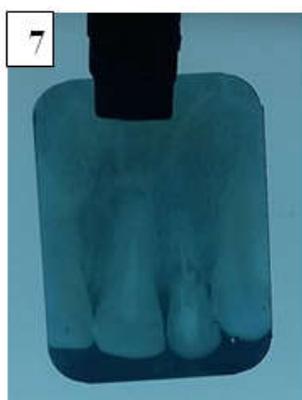


Fig. 7. (7° Queries- 13/03/2007)

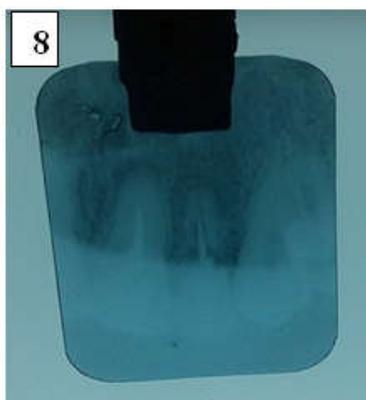


Fig. 8. (8° Queries- 16/08/2008)



Fig.9.(9° Queries- 16/11/2016)

The tooth after avulsion should undergo a series of care, since its integrity must be maintained so as not to generate processes such as ankylosis and root resumption. The saliva of the individual is also used to store the dental element, also

adjacent tissues. Semi-rigid fixation with 0.3 mm wire was performed, keeping the dental element in the socket and follow-up. After one year, the patient presented darkening on tooth 21, which required endodontic treatment. Through the

semiannual radiographic follow-up, internal resorption was observed in element 22 and a slight alteration of tooth staining, where endodontic therapy was proposed. The patient is already under follow-up at 18 years and at the last visit did not present any painful symptoms and alteration in the dental and periodontal tissues.



Fig. 10. Element replanted after 18 years without presentin any changes

Final considerations

It can be concluded from this study that

Dental replantation is the treatment alternative for avulsed teeth, however it depends on several factors associated with the physiological capacity of the periodontal tissues. In the literature, it was proposed that besides the permanent tooth being replanted, it needs endodontic therapy. Through the results obtained in this study, corroborates that endodontic treatment is necessary after replantation, since the teeth develop pathophysiological characteristics that require endodontic intervention.

Conflicts of interest

The authors declare that there are no conflicts of interest.

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