Aesthetic restoration of upper lip after removal of post-trauma foreign body (orthodontic bracket)

ABSTRACT

Background Approach to dental trauma should always be based on a careful examination of the traumatised area, including both hard and soft tissues, to ascertain the presence of a foreign body and to assess the best treatment and follow-up. In this work a case of an orthodontic bracket migrated to the upper lip and retained there for 10 years, following a trauma is discussed.

Case report The patient complained symptomatic swelling of the upper lip; palpation and x-rays showed the presence of a foreign body, identified as an orthodontic bracket. Medical history revealed that patient had a dental trauma 10 years prior. The foreign body was localised and removed. At the two week follow-up visit after surgical incision of the lip, signs and symptoms (i.e. the swollen lip) were resolved. This case emphasises the importance of accurate management of the traumatic event, through proper diagnosis and therapy of both hard and soft tissues, even if the examination if the patient is performed years after the dental trauma.

Keywords Dental trauma; Soft tissues; Lip; Foreign body.

Introduction

Traumatic dental injuries represent one of the main dental problems in children and adults, characterised by different prognosis. Adequate emergency management is required to reducing complications and setting up a specific follow-up programme [Cubukcu et al. 2011]. The approach to dental trauma should always be based on the careful examination of the traumatised area, in order to establish a correct diagnosis followed by proper treatment. The examination should include a careful evaluation of the hard tissues, such as teeth and bone through clinical and radiographical examinations as well as pulp vitality, percussion and mobility tests [Patni et al. 2010; Pasini et al. 2006]. In addition, examination of intra- and extra-oral soft tissues is mandatory [Naudi et al. 2007; da Silva et al. 2005].

After appropriate cleansing, if the presence of a foreign body is suspected, the torn, swollen or hemorrhagic tissues should always be x-rayed, to verify the presence of radiopaque material [Holmgren et al. 2005; Brin et al. 2000].

The authors describe a case of an orthodontic bracket migrated to the upper lip and lodged there for 10 years, following a traumatic event.

Case report

The initial assessment was done on September 2008. B.C., a 18 year-old female, came to the Emergency Department of the Dental Clinic of the University of Milan, complaining of symptomatic swelling of the upper lip.

The intraoral examination showed no dental problem. The upper lip was swollen and aching and palpation revealed the presence of a foreign body (Fig. 1). The small body was partially mobile and the mucous membrane of the upper lip had minimal evidence of a prior torn, bruised wound. A detailed medical history revealed that the patient had had a trauma 10 years before, when she was undergoing fixed orthodontic therapy.

The x-rays showed the presence of a radiopaque foreign body in the upper lip, which was identified as an orthodontic bracket (Fig. 2).

The surgical treatment was performed on October...
2008 after explaining the clinical situation to the patient, and obtaining her informed consent (Fig. 3).

After administration of local anesthesia with 3% carbocaine, a superficial semilunar incision was performed at the site of the lesion. The foreign body was then localised and removed and the lip was sutured.

The postoperative radiographic examination showed neither root nor alveolar fractures. At the two-week follow-up signs and symptoms of the swollen lip were resolved.

The patient was last seen on January 2009 and exhibited neither clinical signs nor aesthetic changes of the lower lip (Fig. 4).

Discussion

Dental trauma often involves the soft tissues. In some cases, coronal fractures, which have a prevalence between 15% and 90% in permanent dentition, are also complicated by the involvement of the oral and perioral tissues.

Trauma management must take into account the simultaneous treatment of soft and hard tissues. The involvement of the soft tissues requires a fast, timely diagnostic and therapeutic approach, through careful examination and palpation, and x-rays are also necessary, in order to exclude the presence of foreign bodies and further complications [Naudi et al. 2007; Rao et al. 2006; Holmgren et al. 2005; Pasini et al. 2006].

This case emphasises the importance of accurate diagnosis and therapy of both hard and soft tissues, so that optimal aesthetic reconstruction can be achieved and soft tissues can heal in a short period of time, restoring both function and aesthetics [de Santana et al. 2001]. Moreover, this case emphasises the importance of soft tissue inspection even if the examination occurs long after the dental trauma has occurred.

Conclusion

This case report underlines the importance of accurate management of the traumatic event; therapy and prognosis depend from careful diagnosis. Even if the patient is seen long after the dental trauma has occurred, examination of both hard and soft tissues is mandatory.

References