



Displacement of Avulsed Tooth into Soft Tissue of Chin Resulting from **EPILEPTIC ATTACK TRAUMA**

Hakan Alpay Karasu, D.D.S., Ph.D.; Lokman Onur Uyanik, D.D.S.; Ismail Doruk Koçyiğit, D.D.S.

Abstract

Maxillofacial trauma is the main cause of emergency admittance to dental clinics. Mental retardation and epileptic status are important factors in an increase in the risk of dental injuries. Tooth avulsion, which is the total displacement of a tooth out of its socket, is an infrequently observed entity. Maxillary central incisors are the most commonly affected teeth. The case of a patient with severe dental injury resulting from an epileptic attack is presented. He had several teeth avulsed and displacement of a tooth into the soft tissue of the chin.

MAXILLOFACIAL TRAUMA is the common cause of urgent admittance to dental clinics; and more than 81% of cases occur before the age of 30.¹ Although there are several risk factors for dental traumas, protrusive occlusion and positively increased overjet have been demonstrated to be the most important ones. Mental retardation and epileptic status are also important factors increasing the risk for these patients.²

The maxillary anterior area is the most frequently injured location within the dentofacial complex. Serious periodontal injuries, such as crown fracture, intrusion luxation, avulsion or dentoalveolar area fractures are important complications of dental traumas. The incisor teeth of children of 7 to 9 years old who have

periodontal problems because of decreased periodontal supporting tissue are more prone to injuries.³

Treatment of dental area injuries differs depending upon the severity and direction of the trauma, loss of supporting tissue and the time period after trauma. These factors also affect the prognosis.

In this report, a proximal anterior tooth injury that developed after a dental trauma resulting from an epileptic attack is presented. Several teeth were avulsed, and one was displaced and impacted into the soft tissue of the chin. The results of the dental trauma and the importance of clinical and radiographic evaluation are discussed.

Case Report

A 38-year-old male patient presented with pain and swelling at the midline of his lower jaw in December 2002. He was epileptic for 14 years and had not used any antiepileptic agent for the last three years. He had infrequent epileptic attacks. According to the patient's history, he had sustained maxillofacial trauma during an epileptic attack six months prior and lost his upper-left central incisor and right canine teeth. He had emergency treatment following the trauma, which included suturing of the intraoral lacerations. No radiographic evaluation was performed before or after the treatment. He had a clinical intraoral examination one week later, and no significant abnormality was detected.

In his last intraoral examination, performed six months after the trauma, we observed that on the upper jaw, only the left third molar and the left second premolar roots were intact. On the other hand, except for the lower left third molar, all lower jaw teeth were intact. There was prominent periodontal tissue loss on existing

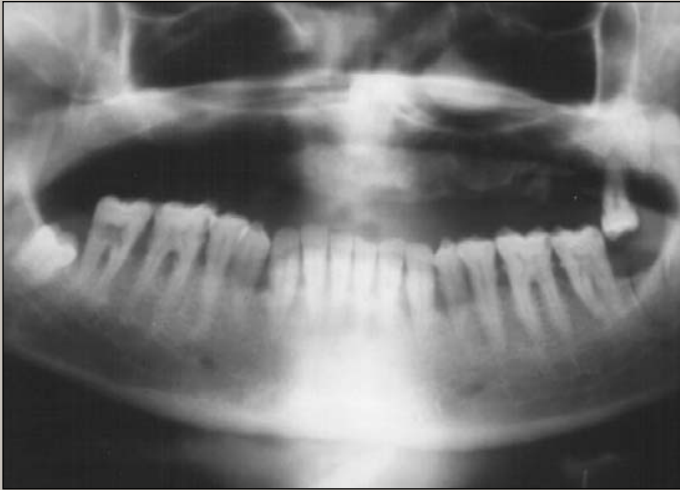


Figure 1. Orthopantographic exam shows presence of tooth.

teeth and oral hygiene was poor. No edema or any soft tissue defect was present.

In the extraoral examination, an edematous lesion, 1.5 x 2 cm in diameter, with a central fistular orifice located at the midline region of the chin, was observed. Bidigital palpation revealed that the area was indurated and the fistula tract was not occluded.

The patient said the swelling on his chin was present for one week and had ruptured the day before.

Conventional periapical radiographs showed no abnormality at the related part of the mandible. Orthopantographic examination showed the presence of a tooth in the soft tissue at the midline of the chin (Figure 1). The location and position of the tooth were evaluated by right cephalometric radiography (Figure 2). Also, the occlusal radiography showed the tooth at the midline of the chin (Figure 3).

Treatment

The area was cleaned with an antiseptic solution. An extraoral ring blockage was performed with an anesthetic solution containing 2 cc articain and epinephrine. An incision of 1.5 cm was made to the indurated area on the chin with a No.11 scalpel. Soft tissue around the affected area was dissected with a N0:2 cryohemostate. After that the tooth was removed from the dissected area by using hemostatic forceps. The dissected area was sutured subcutaneously using a 3/0, polyglycolic acid (Vicryl), rounded spiral, 20 mm suture material. The overlying skin was sutured with a 6/0 polyethylene propilen (Prolene) suture material. The patient was prescribed amoxicillin (1 gr) twice a day and Naproxene sodium (250 mg) three times daily after the operation.

The patient was evaluated clinically at one-day intervals. On day seven, the skin sutures were removed, and the patient was referred to other clinics for further treatment.

Discussion

Post-traumatic teeth avulsions may result in serious complications if they are not correctly diagnosed and treated. An important complication of teeth avulsions is displacement of the avulsed tooth. There

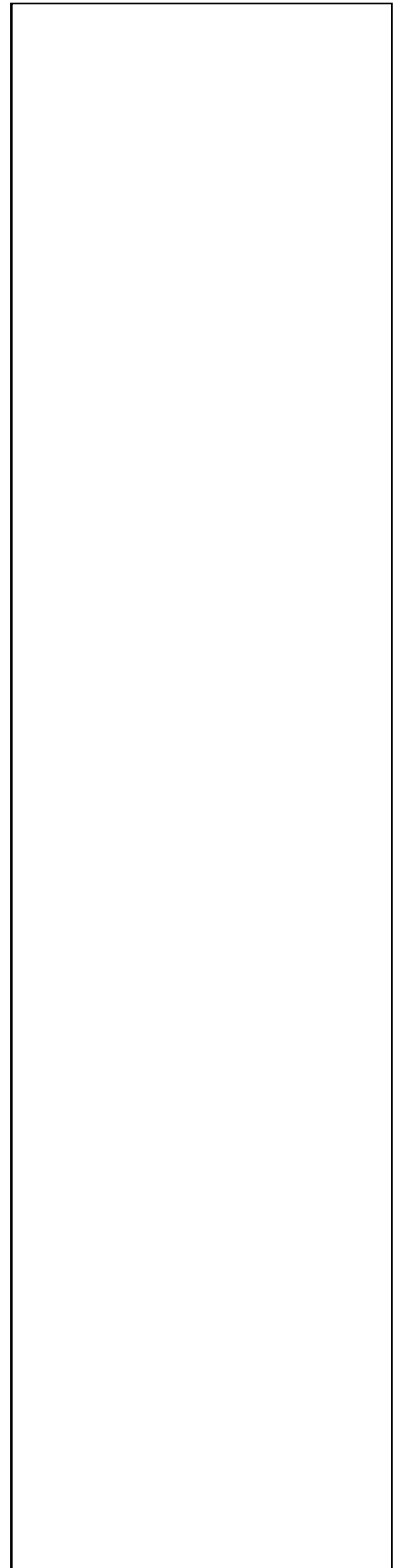




Figure 2. Cephalometric radiography helps pinpoint tooth.



Figure 3. Occlusal radiograph shows tooth at midline of chin.

are several case reports in the literature describing impactions of the avulsed tooth into the larynx, nasopharynx, nasal cavity, maxillary sinus, frontal sinus, pyriform sinus and soft tissues of labia and cheek.⁴⁻¹⁰ There are also a few cases described of the aspiration of the avulsed tooth.^{11,12} In our literary search we have found no other case describing impaction into the soft tissue of the chin.

An undiagnosed avulsed tooth embedded into the soft tissue may result in chronic, persistent infection, discharge and fibrosis. In the early period following trauma, the patient may not understand the severity and importance of the injury, or his low socioeconomic status may hinder urgent appearance at a dental clinic. In addition, inadequately performed intraoral or radiological examination may lead to delay in therapy and prognosis, as in our case.

This case once more emphasizes the need for detailed clinical and radiographical examinations in patients who had maxillofacial traumas to make sufficient diagnosis before planning the treatment modality to prevent possible complications. ■

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