

# Mouthguards and Prevention of Dental Trauma Due to Electroconvulsive Therapy

## Diş Koruyucuları ve Elektrokonvülsif Terapi Bağlı Dental Travmaların Önlenmesi

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### DEAR EDITOR,

Electroconvulsivetherapy (ECT) is an effective treatment on severe affective disorders. It is seen as a safe treatment. Common side effects of ECT are nausea, headache, musclepain and amnesia. Rarely, oral-dental traumas are seen (1,2).

During ECT, the jaw muscles can create very high pressures. Differences in pressure distribution may cause tooth fractures and gingival ruptures. Repeated seances of ECT increase the risk of oral-dental trauma (3). Various buffers have been proposed to prevent oral-dental trauma. For ECT applications, a detailed dental check is among there commendations in the preoperative evaluation (4).

ECT has been used in our clinic, in cases with appropriate indications, as a planned procedure, frequently and without any problems for a long time. We complete the procedures of these patients by providing sufficient depth of anesthesia under the hypnotic effect. Our hypnotic preference is generally propofol due to its rapid effect and short recovery time. After propofol induction, after ensuring airway safety, ECT is applied. While ensuring airway safety, we routinely prefer orofarengal tube use. In addition, we prevent tongue and cheek trauma by creating a cushion between the teeth using orofarengal airway. However, at last, an unwanted complication occurred in one of our patients and we need to review our practices.



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ECT was planned for a 57-year-old male patient with a diagnosis of psychotic depression. The patient had no known additional disease. He was using escitalopram (10mg / day) and alprazolam (1mg / day) regularly. The first seance was completed without any problems. However, in these condseance, left first upper incisor caused dental trauma with the effect of the pressure in the area of the orofarengeal airway during the contractions. And the accident resulted in tooth loss. This accident revealed the necessity of producing additional solutions to protect teeth. After a literature review, we tried rubber tampons. However, in ordertoplacethis tampon, it is necessary to remove the orofarengeal airway from the mouth, insert the tampon and change it again after ECT. This situation distracted us from the feeling of trust we are used to in airway management.

We tried mouthguards used in competitive contact sports to protect teeth. Mouthguards are the most common protection method used in sports activities where one-to-one body contact is high. Many researchers take the view that mouthguards are an important tool for athletes participating in body contact sports and provide tremendous protection for the tooth structure (5).We applied this product, which is seen as an important preventive in dental trauma, for both the lower and upper jawduring ECT in a different patient. We used a product that is easily accessible in the market and can be customized with hot application. In addition, during these seances, we used airways to protect the tongue and cheeks and to keep the airway (Figure). We can say that the teeth are

protected with the jaw by the mouthguards and that we ensure the continuity of the airway opening by the orofarengeal airway. In this way, it looks safer. However, we think that these experiences should be proven by controlled studies.

**Key words:** Mouthguards, Electroconvulsive therapy, Dental trauma

**Anahtar kelimeler:** Diş koruyucuları, Elektrokonvülsif terapi, Dental travma

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**Figure:** The mouthguards and view of airway with mouthguards in patient during electroconvulsive therapy