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CASE REPORT

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Treatment of Habitual Lip Biting: A Case Report

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Introduction

Self-injurious behavior (SIB) is defined as deliberate harm to one's own body without suicidal intent (1). The most common types of SIB are head banging against objects; self-biting of hands, arms, lips, and tongue; and hitting the head with a fist or palm. SIB can occur with mental retardation, psychoses, character disorders, poisoning, genetic syndromes, and congenital sensory neuropathy (1-3). Sensory neuropathy includes sensory loss limited to an afflicted body region, as well as a more general loss of pain sensation in cases of anesthesia dolorosa (4). Loschen (5) et al. reported that anything that causes discomfort, such as sinusitis, headaches, and painful dental conditions, can precipitate SIB.

Various forms of treatment have been instituted in an attempt to prevent lip biting. The dental management of self-mutilation includes various types of shields that protect the tongue and lip from injury, and soft mouth guards. Acrylic trays designed to force the lower lip anteriorly and lip bumpers soldered on orthodontic bands or stainless steel crowns have also been reported (6-8).

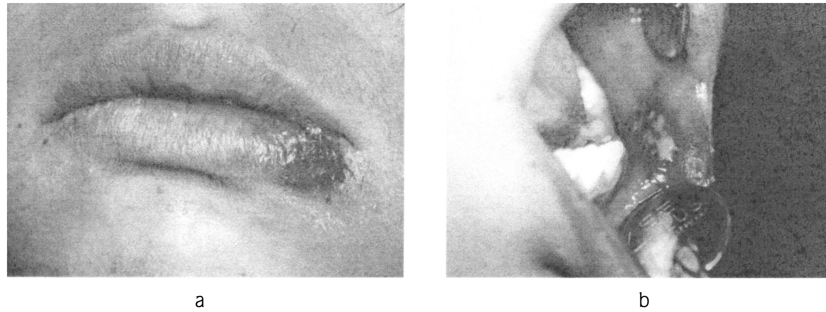
A wide spectrum of SIB exists and numerous treatment methods have been described. The treatment method should be determined according to the severity of the condition. In this case report, the effects of habitual lip biting and treatment with a lip-bumper appliance is presented.

Case Report

A 10-year-old female was referred to the Department of Pediatric Dentistry for the ulceration at the left corner of her lower lip and buccal mucosa (Figure 1a). The medical history revealed that she had neither systemic diseases nor mental retardation. In the intraoral examination, erosion at the left buccal mucosa and inside the lower lip was observed. Small, irregular, white plaques, and superficial erosions were also noted (Figure 1b). It was thought that the patient had a self-inflicted wound on the lower lip caused by the maxillary and the mandibular primary canines, but she was unaware of having a lip biting habit and denied that the wound was self-inflicted.

It was learned that her parents divorced a few months earlier and that, as a result, she became depressed and uncommunicative. The patient was referred to the Department of Pediatric Psychiatry for consultation, where it was determined that an underlying psychological disorder was responsible for the situation.

In the Department of Orthodontics, a modified fixed-lip bumper appliance was installed to prevent the aggressive biting habit. The acrylic shield of the appliance was made thicker and longer than normal in order to prevent the lower lip from being drawn into the lingual of the maxillary primary canines. The labial arch was molded on the



a b

Figure 1a, b. Extraoral and intraoral appearance of the lesion.

bands so that the appliance was used as a fixed appliance (Figures 2a, b). Primary healing of the lip ulceration occurred within 2 weeks.

It was observed that the lower lip completely healed after 1 month (Figures 3a, b). The appliance was removed and the patient was scheduled for periodic follow-up examinations. She is still participating in psychotherapeutic treatment at the Department of Pediatric Psychiatry.

In some individuals, habitual cheek and lip biting becomes a fixed, neurotic behavior (2-4). Various forms of treatment have been instituted in an attempt to prevent lip biting (1,6-10). In the presented case, a lip bumper was preferred as it has some advantages. The construction of the appliance was easy. The patient became acclimated to it in a short time period and she did not have serious complaints while chewing. There are fixed and removable lip bumpers. A fixed appliance was prepared as the success of the removable type depends on patient cooperation. The fixed lip bumper was used for 24 h and the habit was broken in a short period of time. When the habit was completely broken and the ulcerations healed, the appliance was extracted. An extended treatment period may cause orthodontic tooth movement because the appliance shields soft tissue from the dentition (4,9).

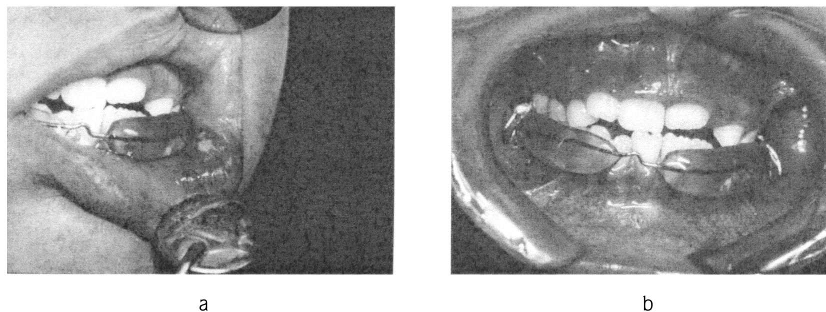


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Figure 2a, b. Intraoral appearance of lip bumper appliance.

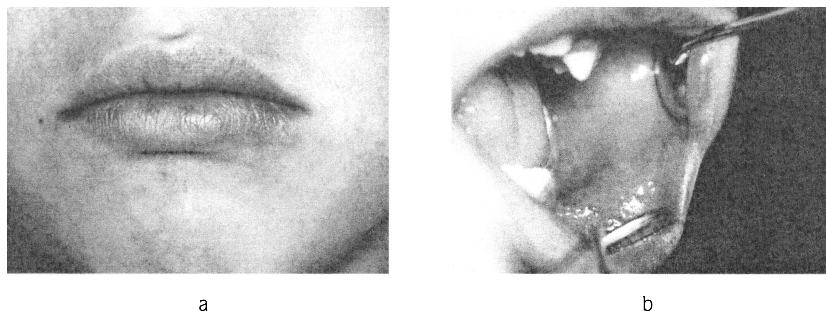

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Figure 3a, b. Intraoral and extraoral appearance after treatment.

Usually, patients who have SIB are unaware of their habit and will not aid in the diagnosis. While planning the treatment method, underlying factors must be taken into consideration, and if the patient has a serious self injurious habit, referral to a mental health professional is indicated (4,5,8). The presented patient had a psychological disorder that manifested as a result of family problems and she was not aware of her biting habit. The patient was referred to the Department of Pediatric Psychiatry, and, in our opinion, not only the lip bumper appliance, but also psychotherapeutic treatment was effective in breaking the lip biting habit.

Lip bumpers may be the treatment of choice in mild cases of SIB. Physical restraints, orthognathic surgery, which intentionally creates an open bite, extraction of teeth, or amputation of the crown portion must be considered as treatment modalities for severe cases of mental retardation or sensory neuropathies (4,10).

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