Self-inflicted Gingival Injury in a Pediatric Patient: A Case Report

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ABSTRACT

Self-inflicted oral mutilation can result in oral lesions that are difficult for a pediatric dentist to diagnose. Sometimes its execution is premeditated, but it can also happen accidentally or as the result of an unconscious, deleterious habit. The purpose of this case report was to describe: (1) the diagnosis of a gingival lesion caused by self-inflicted oral mutilation in a 9-year-old patient; and (2) the proposed treatment. (*J Dent Child*. 2004;71:215-217)

KEYWORDS: SELF-INFLICTED ORAL MUTILATION, GINGIVAL INJURY, DIAGNOSIS, PEDIATRIC PATIENT

Self-inflicted oral mutilation is defined as deliberate harm to one's own body without suicidal intentions.[1] It is generally associated with: (1) congenital insensitivity-to-pain syndrome[2]; (2) epilepsy[3]; (3) congenital toxoplasmosis[4]; (4) multiple sclerosis[5]; (5) psychoses[6]; (6) mental retardation[7]; (7) congenital sensory neuropathy[8]; or (8) Lesch-Nyhan syndrome.[9] This behavior can, however, also be observed in patients who only possess emotional disorders.[10]

Self-mutilation manifestations may be seen as: (1) finger biting; (2) skin cutting; (3) head banging; or (4) trauma to the genital and oral tissues.[1] Documented cases exist of tooth self-extraction,[11] cheek-biting,[12] inferior lip-biting,[9] and tongue mutilation.[13]

While few mouth tissues are immune to such injury, gums seem to be an extremely common target.[10] Injuries can be caused by fingernails or objects such as pencils or pens put into the mouth. Clinically, these appear as inflammations or ulcerations accompanied by gingival recession.[14]

Gingival oral self-mutilation is more commonly observed in girls up to 12 years of age.[14] Ayer and Levin, however, observed a decrease in this behavior in children up to 5 years of age.[15]

The purpose if this case report was to describe:

1. a case of gingival injury due to self-inflicted oral mutilation in a 9-year-old patient;
2. the difficulty involved in determining the diagnosis;
3. the proposed treatment.

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CASE REPORT

A 9-year-old Brazilian girl was seen at the pedodontic clinic of a dental school with the main complaint of a "gum bruise" that had been present for 1 week. The parent denied any syndrome or neurological disorder.

During the clinical examination, a gingival ulcerated injury was observed adjacent to the upper maxillary left incisor (Figure 1). All teeth appeared healthy, and her oral hygiene was satisfactory. Other clinical findings included an anterior open bite, which was being treated with a palatine bar, and a posterior crossbite.

The girl and her mother were asked about any deleterious habits such as finger biting or object biting (pencil or pen). This was quickly denied.

The mother was instructed to talk to the daughter's teacher regarding her school behavior and to observe if she practiced some deleterious habit at home. At the initial appointment, triamcinolone acetonide was prescribed, with instructions to apply the paste to the lesion at night before sleeping.

After 2 weeks, the patient returned for follow-up and it was verified that the lesion was still present. The patient was referred to an oral diagnosis specialist to evaluate the lesion. This professional concluded that the lesion was idiopathic in nature and that it would disappear spontaneously.

Three months later, the patient came back with the lesion still present. She was referred to another specialist, who suspected self-inflicted oral mutilation. At this time, the child was asked again about her some oral habits. She admitted her self-inflicted behavior, saying that she usually put her nail at the bruised area, which caused her to feel pleasure. It was recommended that a:

1. silicon mouthguard be fabricated to cover the whole lesion;

Figure 1. Front view of the lesion.

Figure 2. Mouthguard positioned.

Figure 3. Gum healing after 1 week.

2. psychological evaluation be considered, which the mother was resistant in seeking.

The palatine bar was removed, and alginate impressions of the upper arch were made. A silicon mouthguard (2-mm thick) was fabricated and placed in the oral cavity (Figure 2). At this consultation, the mother was instructed to:

1. continue applying the medication at night under the mouthguard;
2. use the mouthguard 24 hours a day;
3. remove the mouthguard only for meals and oral hygiene.

After 1 week, the patient came back for follow-up. It was observed that the lesion had healed (Figure 3). The patient and her mother were advised about the importance of continuous mouthguard use to eliminate any of the girl's deleterious habits.

DISCUSSION

Oral self-injurious behavior is commonly observed in patients with emotional disorders. In many cases, however, it is hard to identify such disturbances. According to Pattison, it is very difficult to explain the reason why a child with normal psychological behavior and intelligence would develop such a habit.[14] In this case reported, the patient had intelligence compatible with her age. She demonstrated signs of emotional immaturity, however, which were reinforced by her mother's protective attitude.

Although Ayer and Levin observed a decrease of oral self-inflicted behavior in children up to 5 years old,[15] Pattison states that this behavior is present in girls up to 12 years of age.[14] This fact corroborates this case report, because the girl was 9 years old at the time of her dental exam and she had not developed such behavior prior to that time.

The treatment of the gingival injury was only chosen after elimination of any oral pathology and only after a mouthguard was fabricated to prevent the patient's oral mutilation. According to Finger and Duperon, the use of mouthguards is effective for the treatment of self-inflicted oral mutilation, allowing oral tissues to heal.[16] Chen and Liu affirm that the use of an appliance acts as a protector or barrier and promotes an immediate attenuation of the self-inflicted oral mutilation behavior.[1]

The ideal mouthguard should: (1) not interfere with jaw movements; (2) be resistant to displacement; (3) allow oral hygiene; (4) be easy to fabricate[17]; (5) not interfere with speech or feeding; and (6) be esthetic.[5]

The success of a self-inflicted oral mutilation treatment depends above all on identification of the patient's emotional status.[14] Techniques used for this behavior's modification include:

1. continuous positive reinforcement while self-mutilative responses are absent;
2. withdrawal of positive reinforcement upon self-mutilation.[4]

At each consultation, the patient should receive instructions regarding the importance of habit interruption for the maintenance of gingival health until total removal of the mouthguard.

CONCLUSIONS

Although the diagnosis of self-inflicted oral mutilation may be a challenge for pediatric dentists, this should not prevent the consideration of this possibility when idiopathic lesions are present in a child's oral cavity. Proper diagnosis of the etiology of such lesions is essential to establish an appropriate treatment.

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