Factitial (self-induced) gingival disease: Four case reports

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Bizarre-appearing gingival recessions that do not correspond to any known gingival disease or oral manifestation of any known systemic disease are called factitial (self-induced) gingival disease. Psychological factors are very important in their etiology. Generally, the lesions occur during the time the child is experiencing stress associated with the frustration of his or her dependency needs. Four cases of self-induced gingival recessions involving children aged 4 to 6 years are presented and investigated from the pedodontic, periodontologic, and psychiatric viewpoints. (Quintessence Int 2001;32:762-785)

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Gingival recession is a finding rather than a diagnosis.¹ The cementoenamel junction of the affected tooth is a reference line. In “true recession” the root surface is exposed, and in “pseudorecession” there is no root exposure.² Gingival recessions may be caused by a number of factors, such as inflammatory periodontal disease, tooth position, a high frenulum attachment, trauma from habit, improper brushing, or factitial disease.³ Bizarre-appearing gingival recessions that do not correspond to any known gingival disease or oral manifestation of any known systemic disease are usually self-induced (self-inflicted) lesions, known as factitial disease. Psychological factors play an important role in their etiology.³

Since 1959, when Plessett⁴ reported a case involving a 9-year-old patient who extracted two of her own teeth, several cases of self-induced gingival injury have been reported.⁵⁻⁶ Patients with normal intelligence and psychological outlook may also inflict trauma on themselves. In such persons Stewart and Kernohan⁷ have distinguished three categories of injury, based on etiology:

1. Type A: Injuries superimposed on a preexisting lesion (or irritation)
2. Type B: Injuries secondary to another established habit (such as sucking a thumb or pacifier)
3. Type C: Injuries of unknown or complex etiology (often based on some emotional disturbance).

In this article, four cases involving children aged 4 to 6 years who exhibited self-induced gingival recessions are presented. Their cases were evaluated from the pedodontic, periodontologic, and psychiatric viewpoints. All four patients had been referred to the Department of Pedodontics, Faculty of Dentistry, University of Istanbul, for their gingival recessions, with their parents.

CASE REPORTS

Case 1

Periodontal examination of a 5-year-old boy revealed the presence of severe gingival recessions localized at the maxillary central incisors and canines, extending beyond the mucogingival junction. The degree of gingival recession was measured to the nearest millimeter with a color-coded periodontal probe (PCP, Hu-Friedy). All measurements were taken from the gingival margin at six points around each tooth. At the maxillary left canine tooth, the recession was assessed as 5 mm at the midvestibule, while its counterpart had a measurement of 2 mm. For central incisors, the recession could be considered identical since the same degree of severity was assessed for both teeth. The evaluations revealed the presence of
recession to be 2 mm at the midbuccal, 6 mm at the 
mesiobuccal, 4 mm at the mesiopalatal, and 1 mm at 
the midpalatal (Fig 1).

His mother reported that he made these gingival 
recessions with his fingernails and had nocturnal 
enuresis. She indicated that these problems began 
after her second marriage. The patient and his 
mother were motivated for oral hygiene and told to 
cut the fingernails. The patient was then referred for 
psychiatric consultation and therapy for his autoag- 
gressive behavior to the Pediatric Psychiatry Clinics 
of Istanbul University, Faculty of Medicine.

Case 2

Periodontal examination of a 5.5-year-old girl revealed 
the presence of severe gingival recession localized at 
the maxillary lateral incisors, extending beyond the 
mucogingival junction (Fig 2). At the maxillary right 
lateral incisor, the recession was assessed at the mid-
vestibule as 4 mm; the recession at the left lateral 
incisor also measured 4 mm.

Her mother stated that the child was making the 
lesions with a pencil in kindergarten and that she had 
a 2-year-old brother. Her other teeth were normal 
with some caries. Oral hygiene instructions were 
given, and the patient was referred for psychiatric 
consultation.

Case 3

Periodontal examination of a 6-year-old boy revealed 
the presence of severe gingival recessions localized at 
the maxillary central and lateral incisors. At the maxill-
ary right lateral incisor, the recession was assessed as 
2 mm at the midvestibule, while its counterpart had a 
measurement of 1 mm. For the central incisors, the 
recessions could be considered identical, because the 
same degree of severity was assessed for both teeth. 
The evaluations revealed the recession to be 3 mm 
midbuccally, 1 mm mesiobuccally, and 1 mm mesio-
palatally (Fig 3).

Conversation with his mother revealed that the 
child picked at the area with his fingernails. His 
mother stated that he was aggressive at home and at 
school and that she and her husband had problems 
and quarreled often. The patient was motivated for 
oral hygiene and referred for psychiatric therapy.
Case 4

Periodontal examination of a 4-year-old boy revealed the presence of severe gingival recessions localized at the maxillary and mandibular canines and mandibular right lateral incisor. At the maxillary canines, the recessions measured 2 mm at the midvestibule. The mandibular canines also had recession of 2 mm, localized at a similar position. For the mandibular right lateral incisor, the recession was assessed to be 1 mm midbuccally (Figs 4a and 4b).

His father reported that the boy was creating the lesions with his fingernails and with the sharp edges of his toys. His other teeth were normal. Oral hygiene instructions were given, and the patient was motivated to cut the fingernails and referred for psychiatric consultation.

Psychiatric analysis

The psychiatric investigations revealed that the patients had emotional disturbances, including feelings of underachievement and frustration. As a result of these feelings, the children exhibited autoaggressive behaviors on their teeth, sometimes without realizing what they were doing.

DISCUSSION

The psychotic child often resorts to self-mutilation, to direct aggression toward himself or herself. In becoming the victim of his or her own frustrations, the child may turn to self-punishment.4 Orofacial self-destructive behavior may also be seen in patients with Lesch-Nyhan syndrome, which is caused by a decrease in activity of hypoxanthine guanine phosphoribosyltransferase; in individuals with congenital indifference to pain; in mentally handicapped persons; and in hysterical psychopaths.5-11 Self-injuries may be premeditated, accidental, or the result of unconscious habit. If the organic basis for self-damaging behavior is ruled out, then the origin of the behavior usually is (1) the need for attention, (2) the need for sympathy, or (3) a means for financial gain or some other personal gratification.12-13 The patients in these four cases were motivated by the first two reasons.

Self-induced (self-inflicted) oral injuries often pose one of the more frustrating problems for the diagnostician. There are several important diagnostic points:\n
1. The lesions do not correspond to those of any known disease.
2. The lesions usually exhibit bizarre configurations with sharp outlines.
3. The lesions show unusual groupings and distribution and are found in areas accessible to the patient's hand.
4. The lesions may occur singly but are usually multiple.

There are no standard methods for prevention of this self-mutilation, and appropriate preventive methods must be developed individually for each patient. For cases of self-injury with an organic basis, various forms of treatment have been instituted in an attempt to curb the patients' destructive behavior, including use of bite plates, acrylic resin splints, etc.9 In psychotic patients, the causes of this problem should be treated in consultation with a psychiatrist. Self-induced gingival injury is more common in the very young, as in the present four cases; this reflects the fact that the psychological development of the child is affected mainly by the parents' behavior.
REFERENCES