

## Oral piercing and gingival recession: Review of the literature and a case report

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A young adult developed severe gingival recessions and radiographic signs of trauma to the periodontium after wearing a tongue barbell and a lip stud. Oral body art (piercing) can be hazardous to the periodontium; nevertheless, patients inclined to such practices do not see them as health hazards and are very reluctant to remove them. (*Quintessence Int* 2002;33:110–112)

**Key words:** dental trauma, gingival recession, oral body art, tongue piercing

*Body art* is the term usually applied to tattooing, scarification, and the wearing of jewelry in unconventional sites.<sup>1</sup> Ear piercing and body painting as commonly seen in the West are not included under that term. In other parts of the world, piercing of oral tissues and the placement of objects such as large plates (Amazonian tribes), plugs, wires, or rings (Dogan tribe of Mali and Toposa tribe of Sudan) appear to have religious, sexual, tribal, or marital significance.<sup>1</sup> Indians belonging to the Hindu faith celebrate a religious ceremony called *Thaipusam*. During that ceremony, Hindu devotees carry a heavy, ornamented contraption called *Kavadi* and walk barefoot through the streets in a trance from one temple to another. This ritual is performed as an act of penance or in fulfillment of a vow. The *Kavadi* weight is centered on the waist, and metal spikes of the *Kavadi* pierce the skin of the torso. Cheeks and tongue are also pierced with silver slivers.<sup>2</sup> Such practices may lead ultimately to physical injuries and pathologic conditions such as edema, pain, swelling, and infection.<sup>3,4</sup>

Oral body art is usually applied to the lips (lip stud or labrette) and the tongue (barbell) via piercing practices. The enthusiasm developed by young adults for such "artistic" procedures is moving at a fast pace. These practices are gaining popularity; as a result, dental health care providers have more opportunities to

see the detrimental consequences that can affect the tongue, the oropharynx, the lips, and the gingivae.<sup>5</sup> Aficionados of body art often do not limit themselves to the oral areas. It is not uncommon for patients to disclose barbells, rings, or studs on their face (eyebrows or nose) or other body areas (nipples, periumbilical skin, foreskin, penis, scrotum, clitoris, and labia).

### CASE REPORT

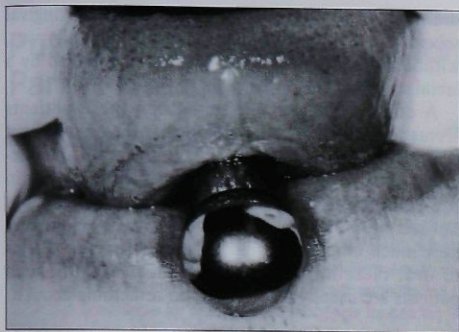
A 16-year-old male patient presented for periodontal evaluation of buccal and lingual gingival recession affecting both mandibular central incisors (teeth 31 [24] and 41 [25]). Extraoral examination revealed the presence of a labial pin (stud) situated 10 mm below the vermillion border of the lower lip and centered slightly off the midline. Some redness of the skin around that structure was a sign of the chronic inflammation created. No other evidence of extraoral pathosis, (eg, tender lymph nodes or foreign-body reaction) was present at this time.

Intraoral examination revealed the presence of a heavy translingual metal bar (barbell) with metal bolts of significant size on each side (Fig 1). It appeared that every time the patient moved his tongue, the bottom bolt hit the lingual surface of teeth 31 and 41, resulting in severe recession affecting both teeth (Fig 2). Moderate gingival recession also affected the buccal gingiva of teeth 31 and 41. The recession on tooth 41 appeared to be more pronounced because the gingiva was in direct contact with the base of the labial stud (Fig 3). The gingiva around the recessions appeared inflamed on both sides, and dental plaque and bleeding on probing were present. Examination of

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**Fig 1** Tongue barbell (sublingual portion) and labial stud.



**Fig 2** Severe lingual gingival recession affecting the mandibular central incisors.



**Fig 3** Buccal gingival recession affecting the mandibular central incisors. The right central incisor has more severe recession because it has maximum contact with lip stud.



**Fig 4** Periapical radiograph of mandibular anterior teeth, revealing signs of periodontal trauma affecting the central incisors.

the remaining periodontium did not show any further problems; probing depths were normal, and the gingiva was free of inflammation. The patient did not report any pain or discomfort.

Radiographic examination of the mandibular incisors showed signs similar to those seen in trauma from occlusion, ie, enlarged periodontal ligament and thickened lamina dura (Fig 4). Teeth 31 and 41 had a mobility of 1 on a scale of 0 to 3 (Miller index).<sup>6</sup>

The patient had a much smaller translingual barbell a year previously and had decided to get a bigger one 6 months prior to coming to the dental office. Gingival recession apparently started shortly after the insertion of the second barbell.

The patient was told of the traumatic effects of these intraoral devices on the periodontium. He was advised to remove them and, if esthetics was a concern, to consider undergoing periodontal cosmetic procedures to correct the defects. The patient did not

agree to such a treatment plan, preferring to keep the metal fixtures. At this point, the only option is to monitor him every 6 months when or if he comes for prophylaxis visits.

## DISCUSSION

The gingival recessions in this patient were clearly related to the metal fixtures. Intraoral piercing (an integral part of what is called *oral body art*) is to be blamed for the rapid deterioration of a gingival condition that was nonexistent prior to piercing procedures. The constant trauma that the mandibular central incisors were subjected to is clearly the etiology of this problem. Periapical radiographs taken at the time of the visit showed an enlarged periodontal ligament around teeth 31 and 41. These images, found in cases of trauma from occlusion, were present where the



lower portion of the barbell acted as a hammer, delivering lateral blows to the incisors. The concern is that in the long run this could induce pulpal pathosis in the form of discomfort or even necrosis.

The present case represented a mild situation in which there was limited damage to the oral structures. The soft tissues were the most affected in this patient but there are reports in the literature of more severe outcomes. Hard tissues such as crowns can be affected,<sup>7</sup> and life-threatening complications may arise when Ludwig's angina becomes a complication secondary to tongue piercing.<sup>4</sup> There is also the concern of disease transmission between individuals via non-sterile needles and catheters. Because these procedures are being carried out by persons who are not medically trained, there is a real threat of infection and cross-contamination.

Patients who have oral piercings are not or choose not to be aware of such outcomes. A common observation is that they seem to be very attached (no pun intended) to their intraoral devices, as cumbersome as they may be, and are reluctant to remove them. They always deny having any problems with the devices and even consider getting more of them.

### CONCLUSION

A few reports in the literature clearly seem to show the negative effects of oral body art (piercing) on oral health. As more complications are observed, because of the tremendous appeal that such practices have to the young population, more data will be available in

the medical literature. In the present case, gingival recession occurring both buccally and lingually was, without a doubt, secondary to trauma inflicted by a labial stud and lingual barbell.

A common characteristic among these patients seems to be the limited concern that they have about their oral health. They will seek treatment on an emergency basis or if they are forced by their family, as in the present case. Removing these "ornaments" does not seem to be an option for these patients. No matter how much emphasis is put on the detrimental effects of oral piercing on oral and general health, such patients are usually reluctant to do something about it.

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