



# Prolonged Bleeding Following Tongue Piercing: a Case Report and Review of Complications

R. Glenn Rosivack, DMD, MS    Juei Yi Kao, DMD

*Dr. Rosivack is clinical associate professor, Department of Pediatric Dentistry, UMDNJ-New Jersey Dental School, Newark, NJ; Dr. Kao is in private practice, Danvers, Mass. Correspond with Dr. Rosivack at rosivarg@umdnj.edu*

---

## Abstract

The number of adolescents and young adults undergoing intraoral piercing is increasing in the United States. Numerous articles have documented complications following intraoral piercing. This article presents a case of prolonged bleeding and reviews other documented sequelae following intraoral piercing. The article may serve as a guide to dental professionals whose patients seek advice regarding these procedures. (*Pediatr Dent.* 2003;25:154-156)

**KEYWORDS:** BLEEDING, TONGUE PIERCING, ORAL

*Received April 8, 2002    Revision Accepted November 1, 2002*

---

An increasingly popular form of body art involves piercing various parts of the body. Piercing may be performed on the eyebrows, lips, tongue, nares, navel, nipples, and genitals.<sup>1</sup> The most common intraoral site for piercing is the tongue.<sup>2</sup> Dental professionals are increasingly being asked for guidance regarding this procedure by their teenage and young adult patients. The purpose of this paper is to provide a reference for dental practitioners regarding the possible complications following intraoral piercing.

The American Academy of Pediatric Dentistry has issued a policy statement "strongly opposing the procedure of piercing intraoral and perioral tissues and the use of jewelry on intraoral and perioral tissues due to the potential for pathological conditions and sequelae associated with this procedure."<sup>3</sup> While the AAPD does not give specific reasons for opposing these procedures, a number of case reports describing complications after tongue piercing have been published.

Previous authors have reported complications including fractured teeth,<sup>4,7</sup> inflammation and edema of the gingiva,<sup>5</sup> and gingival injuries.<sup>5</sup> Infection of the tongue is also listed as a reported sequela of tongue piercing.<sup>5</sup> Additionally tongue piercing may increase a person's salivary flow rate,<sup>5</sup> although this has not been shown to be detrimental. The swallowing of a portion of the barbell placed in a tongue has been reported.<sup>5</sup> This implies that there is

also a possibility of aspiration. There was a reported case of pain, inflammation, and edema associated with placement of a metal barbell in the piercing site of the tongue.<sup>6</sup> The concern of the possibility of keloid formation in susceptible patients has also been raised.<sup>8</sup> Finally, it has been noted that the jewelry placed into the tongue can cause interference with a patient's speech.<sup>1</sup>

A potentially life-threatening complication of tongue piercing was reported in 1997.<sup>9</sup> A 25-year-old woman was referred to a hospital for treatment of Ludwig's angina secondary to tongue piercing 4 days prior. The patient presented with an enlargement of the tongue and floor of the mouth as well as swelling of the submental and submandibular spaces. The patient required hospitalization for 8 days, during which time she received intravenous antibiotic therapy and required 2 intubations to recover from the swelling. Due to complications during her treatment, a presumptive diagnosis of secondary neurogenic diabetes insipidus was made for the patient.

In a recent report,<sup>10</sup> doctors from Yale University presented a case of a brain abscess, which followed tongue piercing in a 22-year-old female. The patient reported pain, swelling, and a purulent discharge at the piercing site approximately 2 to 3 days after the procedure. She removed the stud and the local inflammatory symptoms resolved. Four weeks later, she experienced headache, nausea, vomiting, and vertigo. The patient received a 6-week course of

antibiotics, and her symptoms resolved. While this is the first such report, it is a sensational example of possible complications of tongue piercing.

### Case report

A 15-year-old male was brought by his mother to the UMDNJ University Hospital Pediatric Emergency Room at night. The adolescent's chief complaint was nonstop bleeding from under the tongue. Approximately 6 months



Figure 1. Initial clinical appearance showing a blood clot and continuous bleeding under the tongue.

prior to the visit, the patient had his tongue pierced for the first time, and a barbell was placed. After about 1 month, the patient removed the barbell, and the tongue healed uneventfully.

Four days prior to the emergency room visit, the patient had his tongue pierced for a second time. The patient stated that the site bled continuously after the procedure. The patient then removed the barbell on the third day, but healing did not occur. The patient



Figure 2. Dorsal surface of the tongue.



Figure 3. Ventral surface of the tongue.

reported a pool of blood and a large blood clot under the tongue (Figure 1).

The patient was not taking any medications and had no known drug allergies. There was no history of previous hospitalizations, and the mother denied any family history of bleeding disorders. The patient's mother was uncertain of the patient's tetanus status.

The patient's extraoral examination was unremarkable. The intraoral examination revealed a small hole from the piercing on the dorsum of the tongue (approximately 1 mm in diameter). There was no swelling or purulence on the dorsal surface of the tongue (Figure 2). However, a large hematoma with evolved necrotic tissue was present on the ventral surface of the tongue in the midline. The hematoma was approximately 2 cm in diameter (Figure 3).

The patient was asked to hold a 4x4 gauze under the tongue for 15 minutes and apply pressure to the area. After the 15-minute period, diffuse bleeding was still occurring at the site of the piercing. The patient was administered bilateral mandibular block anesthesia, and local infiltration was performed in the area of the hematoma using 3.6 mL of 2% Xylocaine with 1:100000 epinephrine. After adequate anesthesia in the area, the necrotic tissue was removed using surgical scissors. Three separate 4.0 chromic gut sutures were placed. The bleeding stopped immediately after the suture placement. The pediatric emergency room physician administered 0.5 mL of Tetanus Toxoid, and placed the patient on a 10-day course of oral penicillin.

The patient presented to the pediatric dentistry clinic for follow-up the next morning. The pierced site was healing well with no signs of bleeding or inflammation (Figure 4). The patient was advised to return to the dental clinic in 1 week for an additional follow-up visit, but failed to return despite several written requests to do so.

### Discussion

Boardman<sup>5</sup> states that bleeding is not a frequent complication of tongue piercing. This is due to the fact that the tongue is most frequently pierced in the midline, while the lingual arteries and veins are generally found running laterally. The



Figure 4. One day postoperative; the site is healing well.

preceding case, however, involved a patient who experienced prolonged bleeding subsequent to midline piercing of the tongue. This case report adds to the available literature describing possible detrimental sequelae following intraoral piercing.

A number of hemostatic options are available to practitioners who find it necessary to treat intraoral soft tissue bleeding. Typically, the use of pressure with gauze or cotton is the first option when attempting to obtain hemostasis. Topical agents such as aluminum chloride, silver nitrate, ferric sulfate, and topical thrombin may also be used in specific situations. Local anesthesia containing a vasoconstrictor will also temporarily aid in the control of bleeding. An electrocautery unit or laser may be the instrument of choice when the control of hemorrhage is desirable. Given the resources readily available in the emergency room at the time when the current patient presented for treatment, the placement of sutures was determined to be the treatment of choice in this case.

In light of the negative past medical history for this patient and negative family history regarding bleeding disorders, laboratory blood values were not obtained for this patient. If local measures had not obtained hemostasis, then laboratory tests to rule out a systemic hematologic disorder would have been performed. Another consideration to be made regarding this patient is the fact that this was a second piercing in the same area. Therefore, the prolonged bleeding may have come from vascular rich granulation tissue from the previous piercing.

While some may view intraoral piercing as a fad which they hope will go away, it is currently increasing in popularity and, therefore, must be addressed by the dental profession. It is clear that the best advice to give an individual contemplating intraoral piercing is to avoid the procedure entirely, given the potential for complications which range from minor to life threatening. If an individual cannot be dissuaded from undergoing the procedure, they should be advised to seek out a reputable facility where universal precautions, including using sterile gloves and sterile instruments which have been autoclaved, are followed. Additionally, a person's medical history should be evaluated prior to the piercing procedure to rule out a history of bleeding disorders, conditions which render a patient immunocompromised, keloid formation, and the need for antibiotic prophylaxis.

Many states have passed regulations regarding body piercing. New Jersey, which is where this patient had his

piercing performed, has taken a large step forward in adopting regulations regarding tattooing and body piercing.<sup>11</sup> These regulations include the licensing and inspection of facilities as well as setting standards for the sterilization and disinfecting of instruments. The regulations also require the written consent of a parent or legal guardian before piercing the ears, nose, tongue, or other body part of a person under the age of 18 years. Additionally, the parent or guardian must be present during the procedure. Finally, while there are not yet universally accepted regulations regarding these procedures or a postoperative care regimen for intraoral piercing, recommendations have been made to use Listerine (Pfizer) and Gly-Oxide (Smith-Kline Beecham) to clean the area. All individuals who have undergone the procedure should be counseled to watch for any local complications or systemic symptoms. If any should occur, these individuals should seek treatment by a medical or dental professional as soon as possible.

## References

1. Armstrong ML, Ekmare E, Brooks B. Body piercing: promoting informed decision-making. *J Sch Nurs.* 1995;11:20-25.
2. Reichl RB, Dailey JC. Intraoral body-piercing: a case report. *Gen Dent.* 1996;44:346-347.
3. American Academy of Pediatric Dentistry Reference Manual 2000-01. *Pediatr Dent.* 2000;22:33.
4. Croll TP. "Wrecking ball" dental fractures: report of 2 cases. *Quintessence Int.* 1999;30:275-277.
5. Boardman R, Smith RA. Dental implications of oral piercing. *J Calif Dent Assoc.* 1997;25:207.
6. Ram D, Peretz B. Tongue piercing and insertion of metal studs: Three cases of dental and oral consequences. *J Dent Child.* 2000;67:326-329.
7. Botchway C, Kuc I. Tongue piercing and associated tooth fracture. *J Can Dent Assoc.* 1998;64:803-805.
8. Baum MS. A piercing issue. *Health State.* 1996; 14(3):14-19.
9. Perkins CS, Meisner J, Harrison JM. A complication of tongue piercing. *Br Dent J.* 1997;182:147-148.
10. Murray T. Report of brain abscess wasn't tongue-in-cheek. *Medical Post* [online]. 2001;37. Available at: <http://www.medicalpost.com/medpost/data/3741/25B.HTM>. Accessed December 4, 2001.
11. Stewart A. A palate of restrictions for body art trade: stricter standards for mandatory licensing. *The Star-Ledger.* January 21, 2002; 9.