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Intubation Sequence for Patient Presenting with Tongue Ring

To the Editor:—A 17-yr-old girl was scheduled for an outpatient diagnostic laparoscopy during general anesthesia. During the preoperative anesthetic evaluation, it was found the patient's tongue was pierced with a silver dumbbell-shaped piece of jewelry through the middle of the anterior one third of her tongue. This piercing had been done less than 1 month before this surgical procedure, and the patient did not want to remove the jewelry because it would be difficult to reinsert.

Anesthesia was performed with propofol, fentanyl, nitrous oxide, and oxygen. No difficulty with mask ventilation was encountered. Vecuronium was given to facilitate laryngoscopy. Direct laryngoscopy and visualization of the vocal cords was accomplished with a Macintosh #3 blade, and the patient was orally intubated with a 6.5 cuffed endotracheal tube. After confirmation of correct endotracheal tube placement, the tube was placed to the right side of the tongue to avoid direct compression of the ring in the tongue and then secured. The presence of the tongue jewelry did not interfere with laryngoscopy or placement of the endotracheal tube, and there was no evidence of trauma to the tongue or dentition. Before discharge home that day, the patient's oral cavity was reexamined, and no evidence suggesting trauma from the intubation was seen. The patient had no complaints of pain, soreness, or swelling of the tongue. It appears direct laryngoscopy and oral intubation can be accomplished safely in patients with tongue jewelry as long as one is cognizant of its presence and care is exercised during the procedure.

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Body Art: Another Concern for the Anesthesiologist

To the Editor:—Body art has become increasingly popular in the 1990s, and it is not unusual for the anesthesiologist to encounter a patient with some form of body art, either openly displayed or hidden from view. "Body art" includes tattooing, scarification, and piercing of the body in "unconventional" sites. (Piercing of ear lobes and body painting ["make-up"] are not usually considered "body art".[1]) We recently encountered two cases in which body art played an important role in our anesthetic management.

The first patient was a 19-yr-old woman with medical history significant for psychomotor seizure disorder, asthma, anomalous urogenital tract, and congenital hearing impairment (the patient spoke well but relied on lip reading). She presented for right knee arthroscopy and repair of medial meniscus tear. The physical examination was unremarkable except for a stainless steel barbell visible on the dorsum of her tongue and multiple ear piercings. The oral jewelry had been placed 1 day previous (figs. 1 and 2).

The patient requested an epidural for her procedure, which was placed and dosed without incident in the anesthesia induction room. She was taken to the operating room. As the block began to take effect, the patient appeared to panic, and her upper extremities began to flail about uncontrollably. We quickly induced gen-

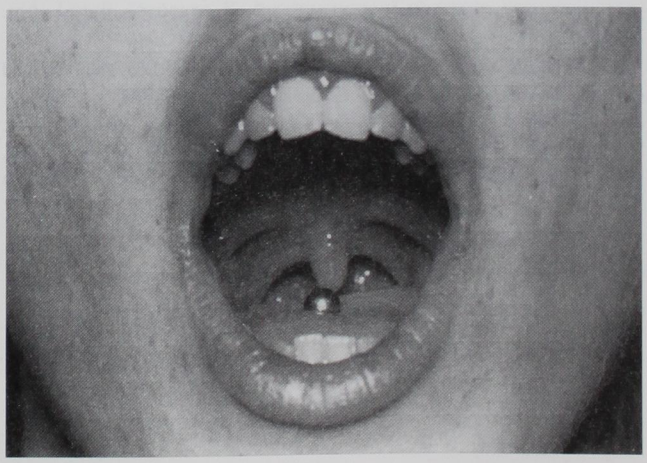

Fig. 1. Frontal view of oral jewelry.

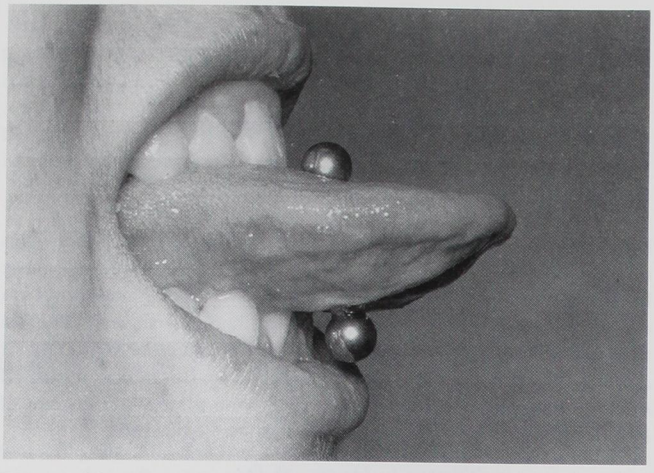

Fig. 2. Side view of oral jewelry.

eral anesthesia and maintained anesthesia by face mask with nitrous oxide and isoflurane. Her airway remained patent, and neither oral nor nasal airways were needed. The case proceeded uneventfully, and the patient emerged from anesthesia, thrashing and hysterical.

The second patient was a 21-yr-old woman with an unremarkable medical history who presented for emergency laparoscopic appendectomy. In addition to a Mallampati class I airway, physical examination revealed multiple body piercing sites in the navel, left nares, and dorsum of the tongue. The patient agreed to remove the navel ring but stated that the tongue bar was placed more recently and would be difficult to reinsert. We decided to proceed with the case after removing only the navel ring, which would have been in the sterile surgical field and would have interfered with the operation. General anesthesia was induced, and laryngoscopy with endotracheal intubation was accomplished without incident. We used a Macintosh #3 blade and a 7.0 endotracheal tube. We were careful to avoid direct pressure on the tongue bar or contact between the tongue bar and other oral structures. The anesthetic and surgical management were uneventful, the inflamed appendix was removed, and emergence and extubation were accomplished without difficulty.

Until recently, piercing of oral tissues was limited to Third World countries. Piercing has been accomplished using a variety of materials, including wood, metal, pottery, and ivory. In some African tribes, wooden plates are worn in the upper or lower lip, whereas in others, wire or ring-shaped ornaments are worn in the lower lip. In Eastern cultures, Hindus and Chinese people have been known to pierce the lips, cheeks, or tongue with an assortment of materials. Initial experimentation in Western cultures with oral body art was limited to the lips (lip stud or labrette); recently tongue piercing with a stud or barbell has become popular.[1-3]

Oral body art poses a unique challenge to the anesthesiologist. The steel hardware is a foreign object that may work loose and become aspirated or swallowed. Dental trauma may result, even if the hardware remains intact, in the process of a seemingly routine anesthetic, as attested by individuals who have bitten down on the hardware while asleep and broken teeth. Edema of the tongue or pharynx can cause airway obstruction. Infection may occur at the site or may spread hematogenously to another foreign object (av graft or an artificial joint).

Both patients insisted that their tongue bars could not be removed and reinserted because the highly vascular and rapidly regenerating tissue would make reinsertion impossible. In the first case, we planned a regional technique, but we were cognizant of potential airway issues and counseled the patient regarding possible oral and dental trauma and aspiration risks. As the case unfolded, we saw our anesthetic plan change because of the unmanageability of our patient during regional anesthesia and were again reminded that one can never assume that a regional technique will remain purely regional. No airway problems were encountered in either case, despite different choices for managing the airway (endotracheal tube *vs.* a pure face mask technique). We anticipate that other problems and issues with body art and anesthesia will be reported in the future.

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References

1. Scully C, Chen M: Tongue piercing (oral body art). Br J Oral Maxillofac Surg 1994; 32(1):37-8

2. Wright J: Modifying the body: Piercing and tattoos. Nurs Stand 1995; 10(11):27-30

3. Armstrong ML, Ekmark E, Brooks B: Body piercing: Promoting informed decision making. J School Nurs 1995; 11(2):20-5

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