CORRESPONDENCE

Anesthesiology
1998; 89:1279

Tongue Rings: Just Say No

To the Editor:—Although body piercing is becoming more popular and we care for patients presenting with umbilical, genital, nipple, nose, lip, and tongue rings, we were surprised to note two recent correspondences describing anesthetic management of patients with tongue rings.[1,2] There are two major concerns with jewelry in the operating room: burns and interference with appropriate medical care. Rings of any nature can be a source of "alternate-site burn." Advances in electrosurgical technology address this concern with newer isolated electrosurgical generators designed to avoid alternate burn sites. Older models of ground-referenced generators can provide a pathway through jewelry and result in a burn. One company that produces electrocautery units states, "patient safety is the highest concern, and one is not well served when jewelry is present." The company states that, "it may not always be possible to remove jewelry. In these cases, the risks associated with the presence of jewelry must be assumed by the patient and the hospital." If the companies that produce the equipment are against wearing jewelry and are willing to place the responsibility on us why should we condone wearing rings in the operating room?.

Of even greater concern is allowing tongue rings in patients undergoing surgery. We cancel elective surgical procedures when the patient refuses to remove a tongue ring, recently placed or otherwise. Although we acknowledge that the hole may close, necessitating repiercing, we are unwilling to undertake airway responsibility with tongue rings present. Ring dislodgment, inability to secure an adequate airway, aspiration, pressure necrosis, injury to the tongue during airway management, and burn are potential concerns. The relaxed tongue can result in tongue-ring protrusion to a much greater extent than that noted in the previous correspondence. We congratulate the previous authors on their successful outcomes but do not agree with their approach. As Mandabach *et al.*[2] demonstrate, the first anesthetic plan may not always succeed, and therefore one should always be prepared to perform general anesthesia. Although there will be emergency situations when patients will have to be cared for who have tongue rings, we believe all efforts, including cancellation, should be used when patients compromise our ability to care for them and when they place themselves at potential risk.

Andrew D. Rosenberg, M.D.
Vice Chairman
Department of Anesthesiology
Hospital for Joint Diseases Orthopedic Institute
New York, New York
Associate Professor
Clinical Anesthesiology
New York University School of Medicine
New York, New York
ADRMDR@AOL.COM
Marjorie Young, R.N., M.A., C.N.O.R.
Director
Surgical Services
Ralph L. Bernstein, M.D.
Chairman
Department of Anesthesiology
Hospital for Joint Diseases Orthopedic Institute
David B. Albert, M.D.
Attending Anesthesiologist
Department of Anesthesiology
Hospital for Joint Diseases Orthopedic Institute
New York, New York

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2. Mandabach MG, McCann DA, Thompson GE: Body art: Another concern for the anesthesiologist. ANESTHESIOLOGY 1998; 279–80

(Accepted for publication May 19, 1998.)

*Eickling J, Ryan C: Is it safe for a patient to wear jewelry during a surgical procedure? Clinical Information Hotline News Valleylab Inc. (800) 255-8522 ext 2005.

Anesthesiology
1998; 89:1279–80

In Reply:—Dr. Rosenberg and his colleagues cite their concerns about elective surgery in patients who wear jewelry in the operating room. We agree with them in this regard. It is our practice to remove jewelry from patients, if possible, before proceeding with surgery (elective and emergent). Body jewelry worn during the perioperative period poses a number of potential hazards. Pressure necrosis or nerve injury can result from ineffective padding. Lacerations can result from entanglement with drapes, gowns, and various monitor cables (electrocardiograph leads, pulse oximeter cables, blood pressure cuff tubing). In addition, electrocautery can potentially result in burns to the patient. This can occur if electrocautery is used near the site of the metal jewelry, because the current would flow preferentially, following the path of least resistance, to the metal jewelry instead of the dispersive plate of the electrosurgical unit. When current flows through an alternative return site, rather than through the dispersive plate, current density is high and serious burns may result.[1,2] Burns have been known to occur when needle localization breast biopsies are performed using electrocautery, as high-density current flows

through the needle used to localize the lesion.[3] To avoid problems with electrical burns, a number of precautions are taken. First, jewelry is removed if possible. Second, the dispersive plate is placed at a site distant from the surgical field. Third, electrocautery is not used if the jewelry is close to the site of surgery. Another option is the use of a bipolar electrosurgical unit, which uses less power because current passes only between the tips of the unit (and not from the tip of the monopolar unit, through the body, to the dispersive pad).[1,2] It is also important to remember that newer electrosurgical units have isolated electrosurgical generators that limit the risk of alternate site burns. The current is isolated from the ground—it will not usually function unless the current returning to the unit by means of the dispersive unit equals the amount leaving the source.[2]

This leaves us with the more important question. Is elective surgery cancelled in a patient who wears oral jewelry? Other than issues related to electrical safety, we share similar concerns as cited by Dr. Rosenberg and his colleagues regarding risks of oral/dental trauma, aspiration, failure to secure the airway, and others. In the patient reported by Dr. Rosenberg's group, the patient has a tongue ring that is quite long, allowing greater movement in the mouth. There is probably even greater danger of oral and dental trauma with this type of jewelry. If the tongue ring has been placed recently, it may not be acceptable to the patient to remove it for the perioperative period. If the patient's jewelry has been in place for a while, it might be possible to remove the piece and replace it with a nontraumatic sterile stent (such as a loop of suture) before the induction of anesthesia. Anesthesia may or may not impose additional risks for the patient who has chosen to wear oral jewelry if the patient has been functioning with the jewelry in place for a considerable time, going about his or her activities of daily living. We will continue to evaluate these issues on a case-by-case basis and would not necessarily cancel an elective case simply because oral jewelry is present. Finally, as we mentioned in our previous letter, we anticipate additional reports of problems and issues with body art and anesthesia in the future.

Mark G. Mandabach, M.D.
University of Alabama at Birmingham
Department of Anesthesiology
Birmingham, Alabama
mark.mandabach@ccc.uab.edu
Diedre A. McCann, M.D.
Gale E. Thompson, M.D.
Department of Anesthesiology
Virginia Mason Medical Center
Seattle, Washington

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(Accepted for publication May 19, 1998.)

Anesthesiology
1998; 89:1280

Oral Etomidate

To the Editor:—I read with interest the article published by Streisand *et al.*[1] described as the first study in humans of oral transmucosal etomidate. They developed a solid dosage form of etomidate for oral transmucosal administration in humans. All adult male volunteers received unflavored lozenges in four different strengths: 12.5, 25, 50, and 100 mg. The authors found that drowsiness and light sleep occurred in a dose-related manner 10–20 min after administration and lasted for 30–60 min. They also suggested that some etomidate was absorbed through the buccal mucosa, although they could not discard the gastrointestinal route. I am happy that their results were also in agreement with our results,[2] where we administered 1.3 mg/kg etomidate to children as a premedication. Because we used the liquid formulation (10 mg/ml), we set our population between 10–15 kg. We observed that 1.3 mg/kg oral etomidate was as effective as oral 0.5 mg/kg midazolam for handling children with the benefit of faster discharge. The dose we used (1.3 mg/kg) seems to be in accordance with the highest dose used by Streisand *et al.*,[1] if we consider that an average healthy male adult weighs approximately 75 kg (≈1.4 mg/kg). We agree that oral etomidate can be an alternative, although we also observed that the children did not enjoy the taste, and we also contacted the company, asking for them to prepare a more concentrated solution with a nicer taste for oral administration.

Gabriela R. Lauretti, M.D., M.Sc., Ph.D.
Department of Surgery, Orthopedics, and Traumatology
Disc Anesthesiology
Faculty of Medicine of Ribeirão Preto
University of São Paulo
São Paula, Brazil
grlauret@fmrp.usp.br

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(Accepted for publication June 13, 1998.)