Preparation for Nasotracheal Intubation

To the Editor:—May I comment about the case report on a complication of nasal intubation by Andrea R. Williams et al. on page 1782 in the June 1999 issue of ANESTHESIOLOGY.¹ This report describes an accidental middle turbinectomy during a nasal tracheal intubation. The authors note that lack of topical vasoconstriction may have contributed to the injury. There is another factor that should be considered before nasal intubation. In a large proportion of such patients, one nasal passage is smaller than the other. Thus, there is a 50% chance of inserting a nasal trachea tube in the narrower of the two. Having the patient sniff and inspection of the nares will not always reveal the narrower of the two passages. There is a maneuver performed before nasal intubation that could shrink the mucous membrane as well as reveal the narrower of the two passages. It was taught to the anesthesia staff at Grasslands Hospital in Westchester, New York by our chief, Harold Bishop in the 1960s. I don’t think he claimed originality.

Two 6-inch cotton-tipped applicator sticks were dipped in neosynephrine (cocaine if an awake intubation was planned). Each cotton tipped stick was slid posterior along the floor of the nose. The mucosa was shrunk and palpation clearly revealed which passage was more patent. Obviously a wider passage will make an easier intubation with fewer complications.

Martin Livingston, M.D.
Honorary Attending Anesthesiologist
New York Eye and Ear Infirmary
New York, New York

Reference

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Middle Turbinectomy: A Complication of IMPROPER Nasal Intubation?

To the Editor:—Despite Williams et al. not being aware of an unintentional middle turbinectomy occurring during nasotracheal intubation,¹ it has been reported and discussed—albeit not with a 6.0 cuffed RAE endotracheal tube (Mallinckrodt Medical, St. Louis, MO)—in ANESTHESIOLOGY.²³

I am particularly interested in the details of how the RAE was inserted from the nares into the nasopharynx. Williams et al. stated it was inserted “into the patient’s right nares with the bevel of the tube facing medially.” This is a bit ambiguous. Is the bevel the point or flat part (opening at the end of the RAE)? What was the opening “facing medial to” — the nasal septum or the turbinates? Was it inserted with the anesthesiologist standing or sitting cephalad to the patient’s head? Lastly, but in all probability most important, was the RAE pulled cephalad at its acute angle (16–17.5 cm markings) after being inserted into the nares and while being passed into the nasopharynx?

Regardless of the type of nasotracheal tube used, turbinectomy is an avoidable complication if: (1) before anesthesia, the turbinates are shrunk using cocaine (4–10%) or a lidocaine-phenylephrine mixture⁴⁵; (2) when inserting the tube into the nares, its tip lies alongside (parallel) to the nasal septum with the opening in the bevel facing the turbinates, and (3) maintaining this position, it is pulled cephalad as it is passed posteriorly into the nasopharynx. Pulling the nasotracheal tube cephalad to its bevel is a simple maneuver that will avoid nasopharyngeal injury when performing nasotracheal intubation.

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tube cephalad (fig. 1), more likely than not directs its bevel and tip away from the turbinates and promotes their passing between the inferior turbinate and the nasal surface of the palate where the nasal passage is the largest. This, in itself, avoids turbinectomy even with a REA tube which if not pulled cephalad is likely to be directed at the turbinates.

Daniel C. Moore, M.D.
Emeritus
Department of Anesthesiology
Virginia Mason Medical Center
Seattle, Washington

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5. Sessler CN, Vitaliti JC, Cooper KR, Jones JR, Powell KD, Pesko LJ: Comparison of 4% lidocaine/0.5% phenylephrine with 5% cocaine: which dilates the nasal passages better. Anesthesiology 1986; 64:274–77

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To the Editor:

Anatomically speaking, physicians often use the more “proper” Latin names instead of the more common lay terms. If one chooses the former, care must be taken to do so correctly.

In an otherwise clear and informative case report, the authors referred to the “left nares” and the “right nares” of a nasally intubated patient. Unless the patient in question had four or more nostrils, this usage was incorrect. One naris plus another naris makes two nares.

Craig S. Jenkins, M.D.
Senior Attending Anesthesiologist
Department of Anesthesiology
Riverside/Grant Hospitals
Columbus, Ohio
jinxed@columbus.rr.com

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To the Editor:

I would like to question the conclusion of Paulsen et al., that “laryngeal trauma caused by tracheal intubation does not cause subluxation of arytenoid cartilage.”1 Whereas they found the forces from endotracheal tube manipulations and “manual squeezing” of the arytenoid produced no subluxation, it is unclear whether the “manual squeezing” described produced simple compression of the tissues, actual arytenoid displacement, or equaled the forces of laryngoscopy. Their study may exclude forces from singular endotracheal tube place-