

## **Diagnosis and treatment of negative pressure pulmonary edema in a pediatric patient: A case report**

### **To the editor:**

In regard to the October 2004 *AANA Journal* article,<sup>1</sup> I think an important adjunct for 100% prevention of negative pressure pulmonary edema was omitted. That is, the atraumatic insertion of a plastic oral airway into the patient's mouth just prior to her emergence from general anesthesia. Oral airways come in sizes 50, 60, and 70 mm for children, and 80, 90, and 100 mm for adults.<sup>2,3</sup> The oral airway can be immediately removed when the patient is able to respond to commands to open his or her mouth.

Not only will the occlusion of the oral endotracheal tube never occur, but the anesthetist also will have the added advantage of an already-present mechanical airway adjunct, once the endotracheal tube is removed. The oral mucosa and the tongue are prevented from occluding the patient's airway. This is especially important in the spontaneously breathing, somewhat somnolent patient.

Many anesthetists have concerns about damage to the dentition by an oral airway, and this has hampered some anesthetists from their routine use. One must carefully document the patient's oral condition in the patient's chart preoperatively during the patient's airway assessment. Any concerns you may have, such as loose, chipped, or missing teeth; damaged restorations; and damaged partial or full dentures, should also be discussed with the surgeon, the patient, and the patient's family as appropriate. The anesthetist should consider that many hard foods that the patient bites into are much harder than the plastic of the oral airway, and one must weigh this against the harmful patient consequences of negative pressure pulmonary edema.

Finally, there have been reports of glottic edema caused by prolonged use of the oral airway in the literature.<sup>3(p1420-1421), 4</sup> Again, this can be prevented by careful atraumatic insertion of the oral airway just prior to the patient's emergence from general anesthesia, with its immediate removal, postextubation, when the patient is able to, "give up" the oral airway.

#### **REFERENCES:**

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**Allan J. Schwartz, CRNA, DDS**  
*Independent Certified Registered Nurse Anesthetist*  
*CRNA Services, P.C.*  
*Columbia, Missouri*