

CORRESPONDENCE

rebreathing and thereby minimize the concentrations of compound A breathed by the patient. High flow rates also limit increases in temperature in the absorbent and therefore limit production of compound A. Similarly, the absence of toxicity in patients given sevoflurane in inflow rates of 2–4 l/min is not reassuring.

If our results in rats apply to humans (and they may not), then the injury that might result from administration of sevoflurane would be subtle because, in most patients, the compound A concentrations produced in closed circuits or low-flow systems would damage only a small fraction of renal cells. Such injury would be difficult to ascertain with ordinary tests of renal function.

The several virtues of sevoflurane may promote its acceptance. Part of that acceptance will be based on the data described by Callan. Part of the acceptance also will depend on a complete description of the toxicity of sevoflurane and compound A. Because our data in rats may not apply to primates, we need data for primates on the *threshold* of injury from compound A. We also need to know the lethal concentration in primates. Finally, we must determine, for a large number of patients, the range of compound A concentrations attainable during low-flow anesthesia, plus the effect of different flow rates, patient sizes, lengths of anesthesia, and choices of carbon dioxide absorbent. Although subtle renal changes may not be clinically relevant, the clinician might want data sufficient to make his or her own judgment.

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Head Immobilization in Eye Surgery

To the Editor:—As an ophthalmologist, I am interested in preventing eye injuries during surgery. In a recent closed claims analysis, Gild *et al.*¹ identified patient movement during eye surgery as the second most common mechanism of ophthalmologic injury, accounting for 30% of the eye injury claims against anesthesiologists.

I would like to share with my anesthesia colleagues a simple method for preventing head movement during eye surgery.

The technique for head immobilization involves taping the patient's forehead to the operating table, in conjunction with a standard donut or trough-shaped pillow. Two-inch-wide cloth tape is used and should be wrapped twice around the patient's head and the table in one continuous piece (fig. 1). The tape is most effective when placed in a diagonal fashion; for surgery on the left eye, the tape is placed from the lower right to the upper left (fig. 2). The tape needs to be as close to the brow as possible without interfering with the sterile field; and it needs to be placed directly on the patient's skin. The contralateral eye must be checked after placement of the tape, because a lagophthalmos of this eye has occasionally been noted as a result



Fig. 1. Side view of head taping.



Fig. 2. Front view of head taping.

of forehead traction. If this is observed, the tape either must be placed higher on the forehead or the eye must be taped closed.

This method of head immobilization is especially useful in disoriented or confused patients during monitored anesthesia care but has equal efficacy during general anesthesia. Potential complications in addition to lagophthalmos include skin damage from the tape and a heightened claustrophobic sensation.

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