

patients or those requiring positive end expiratory pressure, even small leaks can be dangerous.

The simple solution is for the anesthesiologist to empty the cuff at the end of the case and replace the gas with room air.

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### Is Metocurine Better?

*To the Editor:*—The finding by Stirt *et al.*<sup>1</sup> that pretreatment of patients with a small "defasciculating" dose of metocurine could prevent increases in ICP induced by succinylcholine (Sch) is of particular interest to anesthesiologists who frequently care for patients with compromised intracranial compliance. However, in many centers, the use of metocurine is declining, and some hospitals are removing it from their formularies, thus decreasing its availability for use. Unfortunately, the efficacy of the various non-depolarizing muscle relaxants varies with respect to their ability to prevent some of the undesirable effects of succinylcholine,<sup>2-4</sup> so that this finding with metocurine cannot be extended to other agents without specific testing.

Another issue, as recognized by Stirt *et al.*, is the fact that airway manipulation, intubation, etc., can all raise ICP, and attention must be given to these other sources of intracranial hypertension. With this in mind, pancuronium, or other non-depolarizing relaxants, may still be preferred over the metocurine-succinylcholine combination. In work reported by McLeskey *et al.*,<sup>5</sup> four patients given 3 mg of d-tubocurarine for defasciculation followed by succinylcholine had either no change or a decrease in ICP 1 min after succinylcholine administration, but two of the four had increases in ICP greater than 9 mmHg during tracheal intubation. In contrast, none of the eight patients given pancuronium (0.1 mg/kg) had increases in ICP of more than 9 mmHg during intubation (one had an increase to 8 mmHg). These data suggest that pancuronium may help mitigate ICP changes during intubation, which succinylcholine, even after defasciculation, may not do. The fact that pancuronium decreases the MAC of halothane<sup>6</sup> and, possibly, of other agents may help account for its

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*In Reply:*—We thank Dr. Young and her group for their interest in our paper,<sup>1</sup> and would offer two comments.

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effect during intubation. However, the multiple, closely spaced manipulations carried out by McLeskey *et al.* make this suggestion speculative rather than definitive, and indicate the need for further work.

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First, it is indeed true that the availability of metocurine, like that of gallamine, is decreasing, lessening its use even where it might be indicated. Thus, the anes-