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In Defense of Volatile Anesthetics for Short Outpatient Surgery

To the Editor:—In his recent article[1] on intravenous anesthesia for outpatient surgery, we think that White illustrates that this technique is complicated and offers few advantages over more straightforward inhalational techniques.

He demonstrates that assessing the adequacy of anesthesia by the usual criteria of blood pressure, pulse, lacrimation, diaphoresis, and respiration for titration of intravenous anesthetics has drawbacks, since 20% of the patients in the fentanyl infusion group had purposeful movements interrupting surgery.

The author correctly suggests that monitoring Pa_{CO_2} or end-tidal CO_2 might have prevented the signs of hypercarbia from being interpreted as "light anesthesia."[2]

A large fraction of patients receiving fentanyl exhibited hypoventilation requiring positive-pressure ventilation, risking inflation of the stomach. This may pose a significant risk, since outpatients have been shown to have larger gastric volumes than inpatients.[3] Bradycardia, muscle rigidity,[4] renarcotization from sequestered drug,[5] long-lasting respiratory depression,[6] and awareness are other disadvantages ascribed to fentanyl.

The patients in the ketamine infusion group had excessively high incidences of diplopia (60%), visual distortion (36%), incoherent speech (56%), and dreaming (72%). In spite of assurances to the contrary, the risk of emergence delerium appears real. We suggest reserving this drug for more clearly indicated uses.

The well-recognized low risk of awareness, intrinsic muscle relaxation, and predictable potency make volatile inhalational agents very convenient. We have had good results with a technique of assisted respiration during administration of 1.3 × MAC of inhalational agents by mask for maintenance of anesthesia for thousands of short gynecologic procedures.

Although much has been written on the subject, we know of no study directly comparing White's technique with a volatile anesthetic technique, however, we concur with Blitt's[7] excellent review that the latter is advantageous.

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In reply:—In my recent article[1] comparing continuous infusion *versus* intermittent bolus administration of fentanyl or ketamine, it was suggested that continuous administration of intravenous (iv) anesthetics would result in decreased dosage requirements, greater cardiorespiratory stability, and decreased recovery times, compared with the conventional intermittent bolus technique. Since this study did *not* attempt to compare iv and inhalational techniques, it is not clear to me why Dr. Sosis feels it is necessary to "defend the use of volatile anesthetics" for short outpatient procedures. Although volatile anesthetics are extremely useful in the outpatient setting, iv agents may offer advantages in certain situations (*e.g.*, midtrimester abortions).[2] It is in situations where the anesthetist feels that iv anesthetics may offer an advantage over inhalational agents that this author would recommend the use of continuous infusion techniques. The side effects associated with fentanyl (*e.g.*, intraoperative respiratory depression, postoperative nausea, and vomiting) and ketamine (*e.g.*, postoperative emergence sequelae) are problematic in the outpatient setting. However, other iv agents are available that may be associated with fewer