Correspondence

A simple technique for topical anaesthesia of the airway

To the Editor:

We would like to report a simple technique for topical anaesthesia of the airway. It obviates the need for complicated equipment, and is well tolerated by the patient.

After administration of an antisialogogue, 8–10 ml of 4% lidocaine are drawn up into a 20 ml syringe, and then diluted by an equal volume of sterile water. Then the patient is asked to open his or her mouth, and extrude his or her tongue, which is grasped with a gauze pad. Very gentle traction is then applied, which prevents the patient from swallowing. Two to three ml of the solution is deposited at the back of the patient's tongue, and allowed to trickle backwards during deep breathing. This is repeated every 2–3 minutes. If mouth opening is limited, a 14 gauge cannula attached to the syringe facilitates the process. Fiberoptic bronchoscopy and tracheal intubation can proceeed forthwith.

We have used this technique successfully is over 30 patients for anticipated difficult intubation, diagnostic bronchoscopy, and tracheal intubation in the presence of a fractured cervical spine.

Donald Oxorn MD CM FRCPC
Department of Anaesthesia
Camp Hill Medical Centre
Halifax, Nova Scotia

David Chung MD FFARCS FRCPC
Department of Anaesthesia
The Mississauga Hospital
Mississauga, Ontario

Venous tolerance to etomidate in lipid emulsion or propylene glycol (hypnomidate)

To the Editor:

The purpose of this study was to determine if the vehicle in which etomidate is administered affects the rate of local complications, i.e., pain on injection and venous sequelae.

In a randomized single-blind study, 100 patients were divided into two independent groups, of 50 each. They received etomidate, 0.3 $mg \cdot kg^{-1}$ over 20 sec, either in a new formulation (group B), containing 20 mg etomidate in 10 ml of a lipid emulsion (Lipufundin® MCT 20 per cent) or the commercially available etomidate in 35 per cent propylene glycol (group A). Male and female patients aged 18–65 yrs, and of ASA physical states I–III, were eligible.

Each patient received lormetazepam 1–2 mg orally 60 min before anaesthesia commenced. Care was taken to inject each preparation through a large bore cannula (17G) which was placed in a large forearm vein and removed ten minutes after the injection. The other drugs required for anaesthesia were given via a cannula in the other arm.

The induction of anaesthesia and its depth were assessed on the basis of the patients' behaviour and of the lid, corneal and pupillary reflexes. Circulatory function was monitored by blood pressure, pulse and ECG.

Following etomidate in propylene glycol, 36 per cent of the patients described the injection as painful. On the first postoperative day, 9 out of the 47 patients studied further had a phlebitis (tenderness on palpation of the vein) and three others a thrombosis (hardness of the vein). On the seventh day after operation a venous reaction was evident in 22 per cent of these patients. Two patients had a phlebitis (four per cent), five patients (ten per cent) had a thrombosis with obvious hardening of the vein, and four patients (eight per cent) had a thrombophlebitis (tender and hard vein) extending over several cm.

There were no signs of local irritation after etomidate in lipid emulsion. The patients did not complain of any pain during the injection, and venous sequelae were not seen. The anaesthetic induction time (group A: 42.2 sec; group B: 41.1 sec) and loss of reflexes were nearly identical in both groups. Blood pressure and heart rate were stable and similar in both groups.

Two unpleasant side-effects of etomidate, pain on injection and postoperative thrombophlebitis can be abolished while retaining the excellent profile of actions. It is concluded that the lipid emulsion is the preferable vehicle for clinical use.[1–3]

A. Doenicke
A. Kugler
N. Vollmann
Institut für Anaesthesiologie der
Ludwig-Maximilian-Universität
Pettenkoferstraße 8a, D-8000 München 2