Etomidate as an antiarrhythmic

Editor—We wish to report a case of etomidate reverting ventricular tachycardia to sinus rhythm. Although there have been several case reports and studies demonstrating the antiarrhythmic effects of propofol\textsuperscript{1–3} this has not been true of etomidate.

A 59-yr-old man presented to the emergency department with a 2 h history of central chest pain radiating to the left arm and palpitations. He denied any symptoms of shortness of breath, nausea or vomiting. He had no history of ischaemic heart disease but was taking irbesartan for hypertension. He had no other past medical history. He was an ex-smoker having stopped 30 yr previously.

On examination he was orientated with no clamminess or pallor. His pulse rate was 180 beats min\textsuperscript{-1} with a blood pressure of 140/100 mm Hg. On auscultation, heart sounds and breath sounds were normal with no added sounds. An initial 12-lead ECG demonstrated a supra-ventricular tachycardia with a rate of 180 beats min\textsuperscript{-1} and evidence of ischaemic change posteriorly. A 300 mg bolus of amiodarone i.v. failed to produce a response. Systolic arterial pressure remained stable at 140 mm Hg. Subsequently, i.v. adenosine was administered in increasing doses of 6 and 12 mg to no effect. By this time the 12-lead ECG had changed showing a rate of 200 beats min\textsuperscript{-1} and broadening complexes suggestive of ventricular tachycardia (VT). The blood pressure had now fallen to 96/50 mm Hg so the decision was made to cardiovert and anaesthetic assistance was sought.

Owing to the ingestion of solid food 3 h previously, the anaesthetic plan was for a rapid sequence induction with cricoid pressure and tracheal intubation followed by cardioversion. After pre-oxygenation, cricoid pressure was applied and anaesthesia was induced with etomidate. After etomidate 14 mg, it was noted that the rhythm had converted to sinus.

As the patient had been rendered apnoeic, succinylcholine 100 mg was given and the trachea intubated. The tracheal tube was subsequently removed with the patient fully awake in the right lateral position. His blood pressure was 127/87 mm Hg and sinus rhythm persisted at a rate of 90 beats min\textsuperscript{-1}. Owing to the presence of chest pain and the electrocardiographic evidence of a posterior infarct, the patient was thrombolysed with tenectaplase and transferred to the coronary care unit.

Cricoid pressure was applied in this case but this was away from the site used for carotid sinus massage. Carotid sinus massage had not been attempted before the need for urgent cardioversion but it is unlikely to have a role in terminating VT in any case.

There have been several reports of the antiarrhythmic properties of propofol in the literature including the conversion of fast atrial fibrillation to sinus rhythm,\textsuperscript{4} the resolution and suppression of VT\textsuperscript{2} and in the termination of SVT.\textsuperscript{3} However, there have been no such reports in the literature regarding etomidate. Isolated heart studies have, however, demonstrated a decrease in heart rate and atrioventricular conduction time with etomidate.\textsuperscript{4}

S. King*
D. Banker
Dartford, UK

*E-mail: stephanielking@hotmail.com


doi:10.1093/bja/aai580

Aspiration and death associated with the use of the laryngeal mask airway

Editor—We read with interest the recent editorial by Asai\textsuperscript{1} who highlighted those patients thought to be at increased risk from aspiration with use of the laryngeal mask airway (LMA), and the case reports of Keller and colleagues\textsuperscript{2} highlighting three cases of aspiration associated with use of the LMA.

We would like to report the case of an 81-yr-old gentleman who presented for biopsy of an enlarged supraclavicular lymph node. He had previously undergone a left hemicolectomy for bowel carcinoma, and a total thyroidec- tomy for follicular carcinoma. There was no history of oesophageal reflux or hiatus hernia.

He had been admitted 10 days previously with nausea and vomiting, and a change in bowel habit. At this time left supraclavicular and bilateral axillary lymphadenopathy was noted. He had been managed for bowel obstruction and, for 48 h, his symptoms had resolved, with no nausea, and his stoma was functioning normally. The previous day he had eaten normally with no ill effects, and had fasted overnight.

In view of the resolution of the gastrointestinal symptoms the decision was made to use a size 4 classic LMA. Anaesthesia was induced with fentanyl 50 μg and propofol 200 mg. The LMA was inserted easily and gentle ventilation was commenced initially until the patient made respiratory effort. However, it was felt that the position was suboptimal and the LMA was removed and resited on two occasions. On the second removal some green staining of the secretions on the tip on the laryngeal mask was noted. The decision was made to proceed to endotracheal intubation. Neuromuscular block was achieved with vecuronium. Ventilation with a face mask with oxygen 100% was easy with low inflation pressures and at no point was there an obstructed airway, cough, or hiccough.

During the time to paralysis the patient vomited a large volume of yellowish fluid around the face mask. He was immediately turned to the left lateral position with head down tilt of the table applied whilst ventilation with oxygen 100% was continued. After suctioning of the oropharynx the trachea was intubated, after which a suction catheter was repeatedly passed and a minimal amount of yellow fluid was recovered from the lungs. During this episode the arterial oxygen saturation briefly fell to 65% but recovered quickly to 95%. A nasogastric tube was passed and a further 500 ml of non-particulate fluid was aspirated from the stomach.

The decision was made to continue with the surgery, on the basis that minimal fluid had been recovered from the trachea, there was no bronchospasm or residual impairment of oxygenation, and that a histological diagnosis could potentially lead to curative treatment. The patient remained stable for the rest of the procedure, with $F_{O_2}$ of 0.5. At the end of the procedure neuromuscular blockade was antagonized. The trachea was extubated once the patient was fully alert. However, immediate reintubation was required owing to respiratory insufficiency. Over the next hour there was a rapid deterioration in respiratory and circulatory function requiring full ventilatory and inotropic support. The patient was transferred to the intensive care unit where he died within 6 h.

Histological examination of the enlarged supraclavicular lymph node revealed moderately differentiated metastatic adenocarcinoma with extracapsular spread. Post-mortem examination

Correspondence

425