CORRESPONDENCE

Sir,—We read with interest the letter of Dr Wertz reporting haemolysis in cats after the use of etomidate dissolved in propylene glycol (PG). In reviewing the literature we had also found a report on PG-induced Heinz body formation, change in membrane deformability, reduced erythrocyte survival and haemolysis in cats fed with PG-containing pet food. Also, in vitro tests caused haemolysis of red blood cells [1].

We decided not to refer to these observations in our article because feline erythrocytes differ from human red blood cells and appear to be more susceptible to damage. However, we do now wish to refer to an article by Molter and colleagues [2], who reported haemolysis, in vitro and in vivo, using etomidate dissolved in 45 vol% PG.

Whether haemolysis is caused by hyperosmolality of the solution, by a direct effect of PG on cell membranes, or both, has to be investigated further. In conclusion, all authors have suggested re-evaluation of the safety of glycol, especially in large concentrations and when administered over a prolonged time.

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XYLOMETAZOLINE AND PORPHYRIA

Sir,—A 45-yr-old female who had variegate porphyria diagnosed in 1979 presented for submucous resection of the nose. Several previous anaesthetics had made her feel unwell. Symptoms included blistering of the skin, depression and abdominal and joint pain. She was prescribed β-carotene.

She did not receive any premedication. Anaesthesia was induced and maintained with propofol (total dose 300 mg), fentanyl 0.05 mg and 60% nitrous oxide in oxygen, administered via a laryngeal mask and a Bain coaxial circuit. An adrenaline nasal pack inserted in the ward was removed before surgery and local anaesthesia was not used. Anaesthesia and recovery were uneventful.

Urine samples collected for 24 h before, and 24 h and 48 h after operation were screened for porphyrins (table I).

The results revealed normal concentrations of porphyrins before operation. Xyloimetazoline (Otrivine) nasal spray was used 20 h after operation and was the only drug associated with the increase in proporphobilinogen concentration. Xyloimetazoline has been advocated as a safe alternative to other vasoconstrictors and is used commonly in nasal surgery. It may be advisable to avoid its use in porphyric patients.

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TRANSTHORACIC ENDOSCOPIC SYMPATHECTOMY

Sir,—We read with interest the recent article on transthoracic endoscopic sympathectomy for upper limb hyperhidrosis [1]. We have used this technique in three patients and agree with the observation that postoperative pain is mainly retrosternal, but in our patients this lasted for more than 12 h. We postulate that this was the result of manipulation and displacement of the mediastinum during carbon dioxide insufflation and subsequent one-lung anaesthesia. There was minimal discomfort from the puncture sites. We have provided analgesia via intrapleural catheters in all our patients, two of whom had bilateral procedures.

The catheters were introduced by the surgeon under direct vision through one of the endoscopy ports before re-inflation of the lung. The catheter was placed at the apex of the lung in the vicinity of the operation site. Postoperative analgesia was achieved in all our patients with 0.25% bupivacaine 20 ml, given via one or both catheters in recovery, and repeated 4 and 12 h later. A second advantage of intrapleural catheters has been the ability to extract any residual pneumothorax.

Our experience includes bilateral procedures and sequential lung collapse. We have noted periods of arterial desaturation during one-lung anaesthesia on the second side. We feel that there is a significant period of time after re-inflation of the first lung when pulmonary physiology is inadequate to sustain oxygenation on that lung.

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Sir,—We thank Des Gilligan, Smith and Allen for their comments on our recent article [1].

Nearly all our patients experienced pain during the first 4 h after surgery, unless there was any complication (pneumothorax, haemothorax or the need for a thoracic drain). This retrosternal or upper back pain was controlled with a combination of preoperative midazolam and fentanyl, with an additional postoperative i.v. or i.m. dose of opioid titrated to the individual patient's needs. We were reluctant to use intrapleural analgesia administered via a catheter inserted through the endoscope because of the possible danger of bilateral phrenic nerve block [2].

It is unnecessary to leave a catheter in the pleural cavity to treat

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Table I. Urinary porphyrin concentrations

<table>
<thead>
<tr>
<th></th>
<th>Porphobilinogen (µmol/24 h)</th>
<th>Total porphyrin (µmol/24 h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference values</td>
<td>0-12</td>
<td>0-320</td>
</tr>
<tr>
<td>Before anaesthesia</td>
<td>6.59</td>
<td>215</td>
</tr>
<tr>
<td>After anaesthesia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24 h</td>
<td>7.80</td>
<td>430</td>
</tr>
<tr>
<td>48 h</td>
<td>19.86</td>
<td>475</td>
</tr>
</tbody>
</table>

Without any premedication. Anaesthesia was induced and maintained with propofol (total dose 300 mg), fentanyl 0.05 mg and 60% nitrous oxide in oxygen, administered via a laryngeal mask and a Bain coaxial circuit. An adrenaline nasal pack inserted in the ward was removed before surgery and local anaesthesia was not used. Anaesthesia and recovery were uneventful.