CORRESPONDENCE

MYONEURAL BLOCKERS AND SUXAMETHONIUM

Sir,—In their recent study of the effectiveness of various pretreatments in preventing suxamethonium fasciculations and myalgia, O’Sullivan, Williams and Calvey [1] used a delay interval of 45 s between pretreatment and subsequent administration of suxamethonium 1.5 mg kg⁻¹. In their Discussion they stated that although others have used a latency of 1–3 min, there is no unequivocal evidence to suggest that this delay is required. Horrow and Lambert [2] sought to determine the optimal interval between administration of tubocurarine and suxamethonium with regard to onset and duration of neuromuscular block, and the presence of fasciculations and postoperative myalgia. Intervals studied were 0, 1, 3, 5 or 7 min, and pretreatment interval was found not to affect onset or recovery from blockade, or the incidence of myalgia. Fasciculations were blocked with an interval of 3, 5 or 7 min, but not with 0 or 1 min, and they concluded that 3 min appeared to be the optimal time interval.

O’Sullivan, Williams and Calvey [1] concluded that pancuronium had a greater effect on myalgia, and that it decreased postoperative muscle pain significantly at 24 and 48 h compared with gallamine or suxamethonium pretreatment. Before accepting this conclusion, more information is required concerning the four (relatively small) treatment groups with regard to the distribution of type of surgical procedure undertaken. It has been reported [3], and we have found (own published data), that the incidence of postoperative myalgia in female patients after diagnostic laparoscopy on a day-case basis is similar when vecuronium or suxamethonium is used, suggesting that laparoscopy may not invalidate our conclusions. We accept that, after diagnostic laparoscopy in day-case patients, the incidence of postoperative muscle pain may be similar with vecuronium and suxamethonium; however, in the study referred to by Drs Eisenkraft and Herlich [3], patients who received suxamethonium were pretreated also with tubocurarine 3 mg, given 1 min before anaesthesia, and were given supplementary doses of myoneural blockers. In our study, 17 patients underwent minor gynaecological procedures, none of which included laparoscopy.

Although we agree that the four pretreatment groups were relatively small, we do not consider that this necessarily invalidates our conclusions. We accept that, after diagnostic laparoscopy in day-case patients, the incidence of postoperative muscle pain may be similar with vecuronium and suxamethonium; however, in the study referred to by Drs Eisenkraft and Herlich [3], patients who received suxamethonium were pretreated also with tubocurarine 3 mg, given 1 min before anaesthesia, and were given supplementary doses of myoneural blockers. In our study, 17 patients underwent minor gynaecological procedures, none of which included laparoscopy.

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REFERENCES

A COMPLICATION OF INTERCOSTAL INSERTION OF A CHEST DRAIN

Sir,—A 23-yr-old severely asthmatic patient suffered an acute exacerbation resulting in ventilatory arrest at home. Her trachea was intubated immediately by the General Practitioner and intermittent positive pressure ventilation was commenced. During transfer to hospital ventilation became more difficult, and intermittent positive pressure ventilation was commenced.

On arrival in the Accident and Emergency Department the patient was noted to have gross subcutaneous emphysema of the upper thorax, neck and tongue. An electrocardiogram showed asystole. Large-bore i.v. cannulae were inserted bilaterally in the second intercostal space in the mid-clavicular line, with some release of air. Bilateral chest drains were
inserted in the mid-axillary line without delay, and air was seen to escape via both the underwater-seal drains. Ventilation then became possible. External cardiac massage had been continued throughout and cardiac output was restored at this stage.

Chest radiography revealed re-expansion of the right lung, but a persisting tension pneumothorax on the left (fig. 1). The tip of the chest drain could be seen lying across the midline and, on closer examination of the patient, it could be palpated lying in the emphysematous subcutaneous tissues of the back. The chest drain was re-sited and a second chest radiograph confirmed correct placement, with resolution of the tension pneumothorax.

Complications of chest drain insertion are legion and include tearing of intercostal vessels, piercing of the diaphragm or lung tissue and intra-abdominal or subcutaneous placement [1]. The risk of malposition may be reduced by blunt dissection down to the pleura and insertion virtually under direct vision [2, 3]. In this case, gross subcutaneous emphysema, external cardiac compression and the urgency of the situation were contributing factors to incorrect placement. The presence of air under pressure in the subcutaneous tissues led to its escape via the underwater-seal drain, mimicking the release of air from a pneumothorax. The importance of early use of the chest x-ray to confirm correct chest drain placement is underlined by this unusual complication.

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REFERENCES