CORRESPONDENCE

COMPARISON OF BUPIVACAINE AND BUPIVACAINE WITH FENTANYL IN CONTINUOUS EXTRADURAL ANALGESIA DURING LABOUR

Sir,—Following the recent publication of our study on extradural analgesia during labour [1], we would like to notify a case of profound respiratory depression 100 min after the use of bupivacaine and fentanyl in extradural analgesia for Caesarean section. The dose of fentanyl (100 μg) was similar to that used as a loading dose in our study. A detailed case report will follow.

We would therefore strongly advise that patients are observed continuously for a period of 2–3 h following the use of extradural bupivacaine and fentanyl, particularly if there has been evidence of an initial high level of local anaesthetic block.

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G. Jones
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REFERENCE

RELATIVE POTENCIES OF PROPOFOL AND METHOHEXITONE INFUSIONS

Sir,—We were interested to read the recent paper by Schwilden and colleagues on closed-loop feedback control of propofol anaesthesia using quantitative EEG analysis and comparing this with methohexitone [1]. It is gratifying to find that the required rates of infusion for the two agents, as delivered by closed-loop EEG computer control to volunteers, were similar to our findings in the clinical setting [2]. We used intermittent bolus administration of propofol and methohexitone to provide light general anaesthesia for surgery under regional block, and found a mean administration rate of 7.8 mg kg\(^{-1}\) h\(^{-1}\) for propofol and 5.4 mg kg\(^{-1}\) h\(^{-1}\) for methohexitone, giving a relative potency of 0.68. Schwilden's volunteers required propofol 1452 mg over 2 h (approximately 10 mg kg\(^{-1}\) h\(^{-1}\) for a 70-kg subject) and they demonstrated a relative potency of propofol to methohexitone of 0.72.

In their discussion, however, referring to our paper they stated in the discussion: 'This study gave, however, no evidence of an initial high level of local anaesthetic block.'

I am grateful to Drs Mackenzie and Grant for drawing attention to this error.

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REFERENCES

ATRACURIUM AND DOUBLE BURST STIMULATION

Sir,—We read with interest the article by Engbaek and colleagues [1] on the use of Double Burst Stimulation (DBS) for the assessment of pancuronium-induced neuromuscular block. Our preliminary observations using DBS to assess spontaneous recovery of neuromuscular function following administration of atracurium have been less encouraging.
After opioid premedication, anaesthesia was induced in eight ASA I, adult patients with i.v. thiopentone 5 mg kg\(^{-1}\). Nitrous oxide and 0.8% enflurane in oxygen were used to maintain anaesthesia, and neuromuscular block was achieved with a bolus dose of atracurium 0.5 mg kg\(^{-1}\). The lungs were ventilated to maintain \(P_{\text{ET}}CO_2\) at 4.5–5.5 kPa. Before administration of atracurium the ulnar nerve at one wrist was stimulated and baseline compound electromyographic potentials from the thenar eminence were recorded using a Datex Relaxograph [2]. The opposite ulnar nerve was stimulated supramaximally using DBS at 5-min intervals. The pattern of stimulation was identical to that used by Engbaek and colleagues [1], comprising two bursts of three stimuli; the response was evaluated manually at the thenar eminence.

Absence of DBS fade with atracurium was noted first when the mean of the TOF ratio was 29% (95% confidence limits 20–37%). This contrasts with the findings of Engbaek and colleagues [1] who demonstrated DBS fade in all patients following pancuronium at this TOF ratio. This apparent discrepancy may result from differences in presynaptic effect between the two agents [3]; fade during rapid stimulation probably results from prejunctional receptor binding impairing transmitter release [4]. It is therefore unlikely that all neuromuscular blocking agents have similar DBS characteristics.

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REFERENCES

THE OHMEDA OAV 7710 VENTILATOR

Sir,—Ohmeda have recently introduced into clinical practice a microprocessor-controlled, electro-pneumatically driven patient ventilator, the OAV 7710.

This ventilator was designed to operate in either a rebreathing (circle) or non-rebreathing mode, the choice being dictated by the selection of the appropriate patient circuit cassette. In the Primary controlled mode the respiratory variables, expired tidal/minute volumes and rate are monitored by a flow transducer which may be placed at any suitable point in the expiratory circuit. The manufacturer recommends that the respirometer unit is placed at the patient end of the breathing circuit. This necessitates the inconvenience of a cable passing from the transducer to the ventilator, and places the transducer in a vulnerable position. Therefore, in clinical practice, the majority of users have placed the transducer unit as shown in the photograph (fig. 1). In this position, used in conjunction with an Ohmeda Boyle Mk III absorber (which

![Fig. 1. Unusual placement of transducer in relation to ventilator.](image)