CORRESPONDENCE

THE BLOOD LANCET IN REGIONAL ANAESTHESIA

Sir,—The success of regional anaesthesia depends upon accurate placement of local anaesthetic solution in the proximity of nerve trunks [1] without causing sequelae such as neural lesions and damage to blood vessels, tendons, muscles or pleura [2–6]. The classic methods of locating nerves used the production of paraesthesia with the standard bevel needle. New techniques have been developed which use neurostimulation [7, 8] and atraumatic bevelled needles [9] of the “short bevel” and “pencil point” type. Neurostimulation as a method of locating the neural plexus requires the use of needles insulated along their entire length except for the point [10, 11]. This offers a more favourable geometry to the zone of depolarization [12]. The use of the short bevel or pencil point needle was promoted by Whitacre in 1951 [13] and more recently by Selander [14] and Galindo [9, 15]; a number of retrospective studies have directly related the incidence of nerve lesions to the technique used and the bevel of the needle [3, 4].

However, there may be difficulty in introducing a relatively blunt needle through the skin of the patient, and the insulation may act as a brake, thereby impeding smooth passage. We have been able to overcome this problem by making a small incision with a surgical blade after a subcutaneous infiltration with the dermis and creates the appropriate orifice for the atraumatic introduction of 20–25 gauge needles.

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REFERENCES

EFFECT OF SUXAMETHONIUM GIVEN DURING RECOVERY FROM ATRACURIUM

Sir,—Whilst I agree with almost all the comments in the paper by Dr Scott and Professor Norman [1], my own observations using the Datex Relaxograph in similar situations incline me to be less conservative in my advocacy of small doses of suxamethonium to produce brief abdominal relaxation during recovery from non-depolarizing block with atracurium and vecuronium. We have shown [2] that small doses (25–50 mg) can reduce the fluctuations in airway pressure produced by a recovering diaphragm whilst at the same time causing an increased evoked response in the hand.

The authors cite previous findings that the effect on hand muscles of a given dose of suxamethonium depends on the degree of recovery from the underlying non-depolarizing block. Early on, when the residual block is still considerable, there may be no observable depolarizing effect, or it may be limited to a partial transient antagonism of the block; later, the depolarizing effect may produce a biphasic response, antagonizing the non-depolarizing block initially before superimposing a depolarizing block (it is even possible to record a triphasic response, as the depolarizing effect antagonizes the non-depolarizing block during both offset and onset). When the non-depolarizing block has recovered to the point where both T1 and T4 have reached 100%, the depolarizing effect can be expressed only as a transient reduction in both evoked responses, with a T4 fade still prominent on recovery; when administration of the dose of suxamethonium is delayed further, the reduction in evoked responses becomes more profound, and the T4 fade on recovery is much less prominent.