Sir,—In our paper (Robertson et al., 1983) we only claimed that, at the smaller dose, vecuronium was shorter-acting than atracurium and at the larger dose there was no statistically significant difference between the duration of action of either drug. However, since this is a clinical paper we felt justified in suggesting that vecuronium tended to be shorter-acting than atracurium at the larger dose.

All the other points raised by Dr Rosewarne are quoted from abstracts that were not available at the time of writing the paper. Nevertheless, the values quoted for ED$_{50}$ and ED$_{90}$ of atracurium and vecuronium stress the importance of the role of anaesthetic agents in the derivation of these values, since these values were obtained using a nitrous oxide–oxygen–enflurane technique. In the same paper, Foldes and his colleagues (1982), using a neurolept technique similar to our own, produced values for ED$_{50}$ and ED$_{90}$ for atracurium (128.0 and 222.0 µg kg$^{-1}$ respectively) very similar to our own (131.1 and 188.7 µg kg$^{-1}$ respectively).

Regarding the second part of Dr Rosewarne’s letter, it was only proposed that Hoffman elimination plays the dominant role in the breakdown of atracurium, although his points may well be helpful in the understanding of the mode of action and uses of atracurium.

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REFERENCES


THE SUBDURAL SPACE

Sirs.—In a recent paper about spinal needles (Messahel, Robinson and Mathews, 1983), the authors say that the position of a needle “in the subdural space” was confirmed “by the appearance of CSF in the hub of the needle”.

The subdural space is an actual but almost obliterated area between the dura and the arachnoid, the existence of which can be demonstrated during laminectomy when the dura is incised, and the underlying arachnoid prevents the escape of cerebrospinal fluid (Vandam, 1963). Radiographers have long been bothered by the problem of inadvertent injection of radiopaque solutions into the subdural space making it impossible to obtain proper visualization during myelography (Sechzer, 1963). Partial subdural injection may be a cause of failure in subarachnoid anaesthesia. Accident subdural injection can also occur as a rare complication of attempted extradural puncture, especially if the anaesthetist inserts the needle unskilfully and rotates the bevel repeatedly, risking unnecessary trauma to the dura (Bromage, 1978). In describing the technique of lumbar puncture, it is common to omit any reference to the arachnoid; and in fact the subarachnoid space is sometimes loosely, although incorrectly, referred to as the subdural space (Lee and Atkinson, 1978). The subdural space contains a minute quantity of serous fluid, but has no connection with the subarachnoid space which contains the cerebrospinal fluid (Lee and Atkinson, 1978).

To obtain cerebrospinal fluid through a needle, the bevel must be in the subarachnoid space, not in the “subdural space.”

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REFERENCES


Sirs.—Dr Barros is absolutely right. I can only apologize to him and to your other readers for making such a careless mistake.

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