CORRESPONDENCE

Toronto General Hospital,
Toronto, Ontario.
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The Editor,
The Canadian Anaesthetists' Society Journal,
516 Medical Arts Bldg.,
Toronto 5, Ontario.

SIR,

If a new member of the Canadian Anaesthetists' Society may be permitted to utilize some space in the JOURNAL, I should like to ascertain the views of other anaesthetists on the subject of the clinical distinction between the different types of prolonged myoneural block, which may follow the use of the so-called depolarizing muscular relaxants.

For some years it has been my practice, from time to time, to use an anaesthetic sequence in which the balance is tilted towards large doses of relaxant, rather than of general depressant. Using such a sequence, it has occasionally been my misfortune to be faced with prolonged muscular relaxation. This has been the case in a few patients given intermittent doses of decamethonium compounds.

Early in 1950, a patient requiring an abdomino-perineal resection of rectum, who had been given intermittent doses of decamethonium, remained apnoeic post-operatively for a total of about 2½ hours. Whilst he was, at first, totally apnoeic, he subsequently recovered some respiratory activity though this was quite inadequate. With some considerable trepidation, Atropine and Prostigmine were given—followed by the patient's complete and immediate recovery (1). Since then, greater experience with the drug has prevented such gross examples of this phenomenon but more minor incidents have been successfully treated in the same manner.

Now that the phenomenon of "mixed block" (2) is a current subject for discussion, the clinical distinction of the types becomes important. In which cases is it safe to give Prostigmine? I would venture to suggest, sir, that those patients in whom respiratory activity is present but is inadequate (as shown by "see-saw" respiration etc.), and in whom this phase has persisted for, say, 15-30 minutes, may be the group to whom Prostigmine may be given. Needless to say, the possibility of a raised blood pCO_2 should be eliminated, first, by a trial of hyperventilation through an efficient CO_2 absorber.

No apnoeic patient who has received a depolarizing agent should be given Prostigmine.

Yours faithfully,

H. BARRIE FAIRLEY, M.B., B.S., F.F.A.R.C.S.

REFERENCES

1. SCURR, C. F. Brit. J. Anaesth. 23. 103 (1951).
2. PATON, W. D. M. Anaesthesia 8: 151 (1953).