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Letters to the Editor should not exceed 500 words.

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Intermittent Methohexitone

SIR,—We note with great interest the leading article and the paper from Birmingham on the subject of intermittent methohexitone for conservative dentistry (31 May, pp. 525 and 540).

A study of this technique as applied to conservative dentistry has just been completed in Sheffield. Though the complete findings have not yet been fully analysed they are largely in agreement with those reported by Dr. C. C. Wise and others (31 May, p. 540) and Professor Robinson and colleagues.¹

We set out to find the answer to three questions: (1) Does this technique achieve an acceptable standard of safety in our hands? (2) Is an acceptable standard of dentistry attainable using this method? (3) Does the technique compare favourably with conventional "local" methods?

A brief summary of our findings involving 600 methohexitone administrations and 120 "locals" may give some indication as to whether these questions have been answered.

Five experienced dental surgeons and two experienced dental anaesthetists took part in this investigation. The mean age of the patients receiving methohexitone was 25 years (range 12–64 years). There were slightly more men than women.

Cardiovascular Responses.—(a) Electrocardiograph. Cardiac irregularities were comparable in the two groups, the incidence in both being under 5%. In 36% of the administrations of methohexitone pulse rates above 130/min. were noted some time during treatment. (This can in part be attributed to the routine administration of 0.6 mg. atropine). There was only one case with a pulse rate exceeding 130/min. with "locals." (b) Blood Pressure. With methohexitone falls at induction of over 20% of the pre-induction value were experienced in 15% of the administrations and during maintenance in 22%. The comparable figures with "local" were 4% at injection and 10% during the procedure.

Using the intravenous technique, apnoea lasting more than 30 seconds occurred on induction in 32% of the administrations, and during maintenance in 9%.

During maintenance with methohexitone falls in oxygen saturation below 85% occurred in 11% of the administrations. No falls below 85% were observed with "locals."

Respiratory obstruction occurred in 35% of the intravenous administrations. 8.5% of the cases receiving methohexitone showed radiological evidence of aspiration of radio-opaque dye into the trachea.

The mean treatment time of each administration was 30 minutes both for methohexitone and for "locals." On average 2.5 teeth were restored at each visit under methohexitone and 2.0 under "local." However, 13% of the methohexitone administrations resulted in treatment being left incomplete, as the result of excessive patient and tongue movement.

In tests designed to compare the speed at which the patient could do accurate work before and immediately after treatment patients receiving methohexitone did slightly worse after treatment than before (and increasingly worse at higher dose levels), whereas patients receiving "locals" actually improved through familiarity with the tests.

Patients receiving both the intravenous and "local" techniques underwent an extensive study by a psychologist. Considering dental treatment and its associated aspects as a whole, however, there were no significant differences in the beneficial effects of the two types of treatment on the emotional states or the attitudes of patients to dental care.

Further details of this study will be reported in the near future.—We are, etc.,

J. A. THORNTON.
R. A. DIXON.
S. D. HATT.
P. E. MANN.
E. R. PERKS.

Department of Anaesthetics,
The University,
Sheffield, Yorks.

REFERENCE

- Robinson, J. S., Wise, C., Heath, M. J., and Tomlin, P. J., *British Dental Journal*, 1969, 126, 499.

SIR,—It is with great interest that dental anaesthetists are studying the report by Dr. C. C. Wise and others (31 May, p. 540) on the use of methohexitone in dentistry. They are to be applauded for their endeavours; the collection of over one thousand individual values from some fifteen parameters in the thirty cases studied demonstrates the magnitude of the investigation. However, the small number in the series and the absence of controls suggests that this is only a preliminary contribution. The reports from at least two other centres are patiently awaited.

Considerably more evidence will be necessary before methohexitone can be indicted as an unsafe agent. Whereas on the one hand one can accept Professor Robinson's findings using methohexitone in 30 cases, on the other he and his colleagues must equally concede that many more have been safely and satisfactorily anaesthetized, as judged by normal clinical standards, with this same drug. Dr. J. G. Bourne (7 June, p. 630) has rightly pointed out that clinical experience should not be disregarded in forming an opinion.

To which argument the dentist or dental anaesthetist will subscribe is a matter of opinion. He is entitled to practise according to his conscience until the adverse findings of Professor Robinson and the good results of many practitioners are reconciled.

In the report the statement that respiratory obstruction occurred in two-thirds of the cases is alarming. The dentist, and presumably also his nurse, were experienced in this type of work. It must be assumed that the abnormal conditions prevailing, the multiplicity of apparatus and the number of personnel present, contributed to this complication. The obstructed airway may be encountered in any anaesthetic technique and its occurrence cannot therefore be used as an argument against methohexitone. Similarly the fact that in one third of the cases the conditions were not conducive to the performance of good dentistry is not material to the argument.—I am, etc.,

London W.1.

JOHN D. BUXTON.