L'effet du magnésium sur la fibrillation ventriculaire, due à l'hypothermie

SOMMAIRE
Du magnésium a été administré par voie intraveineuse dans vingt-sept cas de fibrillation ventriculaire, due à l'hypothermie. Dans deux tiers des cas, on observe une défibillation après l'administration de magnésium, qui d'autre part facilite dans les cas restants la défibilation électrique. L'auteur discute brièvement le mécanisme possible de l'effet antiarythmique du magnésium.

MAGNESIUMWIRKUNG UND KAMMERFLIMMERN WÄHREND HYPOTHERMIE

ZUSAMMENFASSUNG

CORRESPONDENCE

UNSTEADINESS AFTER RELAXANT ANAESTHESIA

Sir,—It has been our experience that considerable unsteadiness persists after the use of a non-depolarizing relaxant, even after neostigmine has produced good return of muscle power. This unsteadiness precludes the use of relaxants in outpatient anaesthesia. Therefore we have investigated the possibility that this ill-effect might be due to the persistence of a small concentration of relaxant, sufficient to block, preferentially, the gamma efferent nerve endings only, consequently upsetting the stretch reflexes.

This hypothesis was tested in one conscious subject (M.E.W.) by dropping a hammer from a standard height on to the patellar tendon. The amplitude of the resulting knee jerk was recorded on a card by means of a felt-tipped pen strapped to the foot. Gripping a dynamometer with the hand immediately before the elicitation of the knee jerk causes an increased discharge in the gamma motor neurones. This increases the sensitivity of the muscle spindles and an augmented jerk results (Bullen and Dornhorst, 1957). In a control series of recordings the mean amplitude of the knee jerk was 17.5 mm without reinforcement and 56.4 mm with reinforcement. Then gallamine 20 mg was injected intravenously, followed by another 20 mg 7 minutes later. The accumulated dosage was sufficient to paralyze the small muscles of the eyes, hand and throat. A further series of recordings showed that there was no significant change in the amplitude of the reflex, either with or without reinforcement (table I). This indicates that the gamma motor neurone endings were not blocked by the relaxant. Only one subject was used because of the nature of the experiment but the results were quite definite.

An unsteady feeling, reminiscent of motion sickness, was experienced for 2 hours after the injection while the subject attempted to carry out his normal activities. Throughout this period there was difficulty in maintaining visual fixation, as has been neatly demonstrated by Hannington-Kiff (1970). Therefore it would seem likely that the unsteadiness is due to ocular instability rather than to an effect on the muscle spindles.

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REFERENCES