CORRESPONDENCE

THE DANGER OF VARIOUS TYPES OF MEDICATION DURING ELECTRIC CONVULSIVE THERAPY

Editor, The American Journal of Psychiatry:

Sir: Being in contact with many psychiatrists who give electric convulsive therapy (ECT), I am greatly alarmed by personal communications on fatalities which remain unpublished because of understandable fear of law suits. The purpose of this brief note, is to inform the profession and to warn against unnecessary use of various types of medication in connection with this treatment.

Death in ECT without premedication has been extremely rare. This is in accordance with the neurological experience that a convulsion in itself is a mechanism which the human body is able to stand very well. An analysis of the first report on fatalities in ECT showed that those who had died during the actual treatment had all received premedication with curare. In my own large experience with ECT the only fatality occurred in one of the few cases treated with curare. Muscle relaxation is now widely recommended with the less dangerous succinylcholine. Yet, this too undoubtedly adds to the risk of the treatment. Reports on fatalities are rare, but unpublished near fatalities and deaths are sufficient reason to object to occasionally heard statements that administration of ECT without a muscle relaxant constitutes negligence. Knowing that in European countries succinylcholine is even more widely used than here, I wrote to two European experts on electroconvulsive therapy. According to their answers, one of them discontinued succinylcholine after one fatality; the other had 2 fatalities with 15 mg. and 20 mg. succinylcholine respectively. Such occurrences cannot be minimized by the fact that many others have used this technique without untoward results.

The fact that intravenous barbiturates have to be given in combination with the muscle relaxant add further to the potential risk, although we all have to use intravenous barbiturates even without muscle relaxation in selected cases to counteract postconvulsive excitement. It is undeniable, however, that respiratory difficulties are greater in such patients than in those treated without barbiturates.

Much more serious is the sharp rise of fatalities in patients who are under chlorpromazine and reserpine medication while given ECT. I received detailed reports on several such fatalities. One case each of death from ECT during chlorpromazine and reserpine medication will be quoted briefly. A man, age 55, suffering from a depression, had a blood pressure of 145/90 and a normal EKG. He took a first tablet of 50 mg. of Thorazine the evening before the first ECT and a second tablet of 50 mg. of Thorazine the morning of the treatment. After the convulsion he resumed normal respiration but expired a minute later. No autopsy.

A physically healthy young man, age 20, who had received ECT before, was placed on reserpine, 1 mg., b.i.d. during a relapse of his schizophrenic symptoms. During this medication ECT was resumed, and he died in the 8th treatment with signs of cardiac arrest. Autopsy revealed only pulmonary and cerebral edema. The psychiatrist who treated him also reports 5 near-fatalities in patients who had taken reserpine 1 mg. b.i.d. for at least 2 or 3 weeks. They became ashen in color and showed signs rather of cardiac than respiratory arrest. He had had no similar experiences before he started, nor since he discontinued medication with reserpine in ECT patients.

That intravenous barbiturates add to the danger in such cases is suggested by a fatality in a man who took Thorazine only irregularly but who was given intravenous pentothal as premedication to his first electroshock treatment. The potentiating effect of chlorpromazine on barbiturates might have contributed to this accident.

Again I must urge that more caution be used in complicating ECT with any type of medication. This does not mean that succinylcholine should never be used, but we must realize that the question of its routine use has not yet been settled. As far as chlorpromazine and reserpine are concerned, they should be discontinued, wherever possible, several days before ECT is instituted. Since no convincing evidence has been brought forward that the combination of these drugs with ECT is therapeutically more effective than when they are given separately, their simultaneous use should be avoided.

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