DEANOL IN DEPRESSION

A CONTROLLED TRIAL

By

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THE management of mild depression and its concomitant associated symptoms of general debility presents a constant and widespread challenge to psychiatry both in hospital and in general practice. It is inevitable that at some stage resort will be made to drugs. This is a tempting pharmacological field and the level of interest is indicated by the available plethora of alternatives. A recently introduced drug, in current use and purported to be of use specifically in this field is Deanol (Deaner) which is the p-acetamidobenzoic acid salt of 2-dimethylaminoethanol or Atrol which is the bitartrate of the same base.

The theoretical grounds for the introduction of D.M.A.E. (Deanol) followed observations that certain tertiary amines including arecoline, pilocarpine and eserine would inhibit certain conditioned responses in rats, and that lucid intervals in schizophrenic patients were produced by arecoline. It was concluded that the production of acetylcholine in the brain might have a beneficial stimulant effect. The agent chosen was D.M.A.E., a tertiary amine which is a precursor of acetylcholine and which can cross the blood-brain barrier (Pfeiffer *et al.*, 1957). Lemere and Lasater (1958), Moriarty and Mebane (1959) have claimed improvements from 60–70 per cent. in a series of over 150 patients finding it particularly useful in mild depression, chronic fatigue states, and nervous exhaustion. These were not controlled trials. This present paper records the result of a controlled study.

CASE MATERIAL

Twenty patients were investigated, 4 females and 16 males; 4 as in-patients and 16 as out-patients. The preponderance of male patients carries no bias of selection, simply reflecting the fact that the trial was carried out in a predominantly male unit. The average age was 37, the youngest being 26 and the oldest 57. Patients were selected for the trial if the prominent symptom was depression in the setting of an affective illness, of a degree requiring hospital treatment but not severe enough for E.C.T. Other symptoms such as fatigue, disturbance of sleep, lack of concentration, various bodily aches were not constantly present but it was the change of mood that remained prominent throughout. In 15, symptoms had been present for less than 6 months, 3 for 12 months and in the other 2 for over 3 years. For 10 patients this was their first depressive illness; in 8 their second, and, the third and fourth for each of the other 2. Seven had previously had E.C.T. One had undergone leucotomy and one had been treated with psychotherapy.

METHOD

The method used was the double-blind, self-controlled clinical trial. The basis of the trial was a comparison between the placebo and the active drug

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phase and not an absolute assessment. Patients received 40 milligrams of Deanol or an inert placebo. This dosage is in line with the other trials, the out-patients receiving it in one dose in the morning and the in-patients in two 20 milligram tablets morning and noon. All were informed that they were going to be treated with a new drug and the only other medication permitted was the patients' customary hypnotic at night. During the treatment only the chief pharmacist was aware of which tablets a patient was receiving at that time. It was indicated by the makers that initial improvement might be expected to occur by the end of the first week. Of the 20 patients, 5 were treated for 10 days, 10 for 2 weeks and 5 for 4 weeks on the drug and for the same period on the placebo. Patients were assessed initially at 10 days, and fortnightly. They were rated as: symptoms absent (0), slight (1), severe (2). Ideas of guilt, retardation, insomnia, loss of appetite, weight loss, and the overall state of the mood were also assessed.

Results

Five patients improved, 3 during the Deanol and 2 during the placebo phase. Of these 3, 2 had been on the drug for 2 weeks and 1 for 4 weeks. The remaining 15 showed no difference in either period. These results show clearly that the therapeutic effects of Deanol were no better than those of the placebo.

Discussion

The number of subjects in this trial is small but in view of the unequivocal nature of the results obtained it was felt to be unjustifiable to continue the trial further. Although these results concur with those of other workers in the absence of any side-effects, yet the significant amelioration found elsewhere in the uncontrolled trials referred to above has not been supported by this trial.

Summary

Deanol, a drug reported to be useful in mild depression, was studied in a controlled trial using 20 patients. The results obtained were no better than those of the placebo.

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