who have a thorough grasp of various complex and interlocking defence mechanisms. Indeed, it is very difficult to conceptualize the patient's behavioural changes and symptomatic variations except in terms of regression, displacement, intellectualization, reaction formation, projection, overcompensation and the rest. These dynamic formulations serve to provide a better understanding of behavioural complexities than does the language of chemistry.

On the other hand, no analyst should, and indeed few analysts do, ignore the value of the insights into behavioural changes that are emanating from other studies, notably from psychopharmacological research. An excellent example of this awareness may be seen in the opening chapter of a psychoanalytic study of homosexuality by Irving Bieber who, though impressed by the current attempts to explain deviant patterns of sexual adjustment on an organic basis, concludes that the weight of evidence, in this human problem, still favours a psychopathological causation.

There seems, however, to be an accumulating weight of evidence that manic-depressive states have a strong organic basis, apart from their known reactive bases, and it would seem logical to infer that if psicotomimetic drugs can produce temporary and so called model psychoses, then spontaneous psychoses are at least associated with the biochemical changes which such drugs can initiate.

The critical question of course is to decide what is cause and what effect—or what reactions, physical or psychic, are correlative and consequential rather than causative or determinative. In some of the highly intricate and complex mind-body relationships, this question may be impossible to determine within our present frame of reference but it is a challenge that should absorb and fascinate us at least for the 20th Century.

REFERENCES

Reprint requests: —
Dr R. E. Seal, Department of Psychiatry, St. Vincent's Hospital, Fitzroy, Vic. 3065.

THE TREATMENT OF ENURESIS WITH IMIPRAMINE

The occurrence of a rather naive attempt to lay claim to originating the treatment of enuresis with imipramine in 1960 (Ayres, 1966) has prompted the author of this annotation to write an historical note on the topic. The treatment originated in Australia at the Observatory Clinic, Melbourne. The first publication appeared in 1960 (MacLean, 1960) and was elaborated further soon afterwards (MacLean, 1961).

In the course of using imipramine in the treatment of depression in adults during 1957-1959, the author had noted that several male patients complained that it was somewhat difficult to pass urine on full dosage. After a while, it occurred to him that this side effect might be useful in the treatment of enuretic children. In September, 1959, Mr Hugh Esson, then senior psychologist at the Observatory Clinic, commented one day that, since imipramine was causing dryness of the mouth in adult patients, it might perhaps act in a "drying up" way in enuretics. The writer replied that the physiological mechanisms concerned were not the same, but found himself stimulated by the psychologist's comment to make a trial with suitable children.

The details of the first patient, who had been referred to the writer by Dr Alan Stoller, are as follows:—

J.S., a girl then 8 years old, first seen by the writer on 26th March 1958, was a bright, active, sensitive child whose only sibling was a sister 2 years younger. In early years, she had for a time been a breath-holder and compulsive thumb-sucker. Enuresis was continuous until the age of 5½ years, but had stopped after fears had been allayed regarding a previously suggested operation for a strabismus. However, enuresis recurred at the age of 7 years and 3 months, and resisted treatment. There seemed little reason to suspect marked disturbance of relationships in the family, and treatment with an "Enucall" conditioning machine was begun in April, 1958. For 12 months, with the help of repeat courses with this apparatus, much improvement resulted; but a relapse at the end of this period resisted both further conditioning therapy and drug treatment. This girl became the first enuretic patient to receive imipramine when, on 21st September, 1959, she was given 25 mg. at 5 p.m. and 50 mg. at 8 p.m. daily. The response was immediate and complete, continuing when the total dosage was reduced to 50 mg. daily.

The writer did not carry out a controlled study himself, but encouraged others to do so (Noack, 1964; Drew, 1966). With few exceptions, the published literature has since confirmed our original impression of the value of this drug in the treatment of enuresis. However, one paper found the treatment did not work in enuretic 19-year-old naval recruits! Another paper (Abrams, 1963), in recording a
careful double-blind study, concluded that imipramine had no specific effect on enuresis; however, dosages of only 25 mg. for children under 12 years and 50 mg. for children over 12 years of age had been used! It should be realized that, even at the age of 6 years, it is advisable to start with 50 mg., reducing the dose later if necessary; for not only should an adequate dose be used at some stage, but it is desirable to err on the high side at the start so that the chance of immediate response is increased.

The appended bibliography is far from complete, serving only to record the earliest papers and provide a small representative selection of the later ones.

Generally, in the writer’s view, the value of this drug lies in the “cover” which it affords a child or adolescent until such time as psychophysiological maturation reaches a level at which full control, with a few or no relapses, is possible without it. Even if the cover continues for many years, no harm is done, and the patient at an appropriate age can be responsible for his own tablet administration — even in boarding school, where the connivance of a discreet matron can be invaluable. The point has already been made (MacLean, 1961) that, for enuretic Boy Scouts (and a smaller number of Girl Guides), the motto “Be Prepared” extends itself to the provision and concealment of a number of pills sufficient to ensure safety and comfortable nights throughout each camp period.

Attention is drawn to the work of Drew (1966) among children at four Salvation Army children’s homes; especially to the recorded absence of side effects, the immediacy of the therapeutic effects and the simplicity of the treatment programme.

Miller (1968) found that imipramine was equally effective in both sexes and in all age groups in a study claimed to be the first to meet all of the following criteria: a double-blind technique, a large sample from a normal population, and exclusion of other therapeutic measures.

Milner and Hills (1968) reported on the treatment of bed-wetting in psychiatric hospitals, using a double-blind cross-over study as a means of assessing the efficacy of desipramine, imipramine and nortriptyline. It was noted that the diagnostic category affected the results, the group most likely to improve being the female schizophrenics with the highest number of dry nights initially, and the least likely the intellectually retarded with the most wet nights at the onset. A single dose of 75 mg. of any one of the three drugs led to an improvement of from 0.63 to 2.43 dry nights more per 14-day period, depending on the diagnostic category.

It was also noted that while there was a significant increase in the incidence of dry nights in the female schizophrenic group with each of these three drugs, only nortriptyline had a significant effect in the organic psychosis group.

REFERENCES


Reprint requests — R. E. G. MacLean, Psychiatrist Superintendent, Observatory Clinic, The Domain, South Yarra, Victoria, 3141.

ERRATUM

In the September, 1969, issue of the Journal, it was incorrectly stated that Dr John Alfred Earl had been elected to membership. This error is regretted.