

MYANESIN IN PSYCHIATRY.*

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IN the course of a systematic investigation of the pharmacological properties of *α*-substituted glycerol ethers it was found that some of these compounds produced muscular relaxation and paralysis. In small doses, administered subcutaneously, muscular relaxation and a sleep-like condition were produced in laboratory animals—in larger doses there was ataxia followed by paralysis. Of the various compounds studied, mephenesin was found to be the most potent and to possess the greatest margin of safety, and it is this product which is used, for oral administration, in Myanesin Elixir.

While the pharmacology of the preparation does not seem to be precisely established, certain welcome features are evident:

It is quickly broken down in the body and there is no cumulative effect.

In suitable doses it produces muscular relaxation without causing respiratory arrest or affecting blood-pressure.

There is evidence to support the view that its action is due to its depressant effect on the reflex excitability of the spinal cord, and Freudenberg (1950) has noted that, in certain psychiatric conditions at any rate, it produces a beneficial depressant action on the cerebral cortex.

In neurology, treatment by Myanesin has been given extensive trial chiefly in cases of Parkinson's syndrome, in spastic conditions, and in tetanus; in general the results have been considered satisfactory. Even in those cases—such as severe tetanus—in which this could not be said, there were certainly no adverse toxic reactions. In epilepsy the drug seems quite definitely to raise the convulsive threshold, and this effect may also be noted in the administration of E.C.T.

Since 1949 there have been several reports on its use in psychiatry, chiefly in the treatment of cases of anxiety tension (Ström-Olsen, 1951) and, to a lesser extent, in cases of alcoholism (Schlan and Unna, 1949; Freudenberg, 1950), and though no extravagant claims were made, the general impression was favourable.

During the past year we have used Myanesin in the treatment of 68 patients, mainly those presenting predominantly anxiety symptoms. In every case an effort was made to assess the previous personality, to establish the duration of the disorder before treatment, and the presence or absence of precipitating factors: the duration and dosage of Myanesin treatment was also noted, together with the presence of adjuvants.

The previous personality was assessed according to the criteria of Paster and Holzman (1949) as "excellent," "good," or "poor." EXCELLENT in those patients who revealed no history of neurotic or psychotic determinants, had a good occupational record, and were well adjusted socially; GOOD in those who revealed a history of common neurotic determinants, who over reacted to situations of moderate emotional stress but who had not shown incapacitating neurotic behaviour or malignant mental trends and had adjusted fairly well in their respective communities; POOR in those who had a past history replete with neurotic determinants and psychopathic traits, who were unable adequately to meet everyday stress and strain, with poor occupational records and sometimes with a history of previous treatment for nervousness, or even for psychotic episodes needing hospital treatment.

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The results were described in four categories :

- (1) Complete remission.
- (2) Social recovery.
- (3) Improved.
- (4) Worse, or unchanged.

In our series the results in (1) and (2) were regarded as successes, those in (3) and (4) as failures. All cases in which the part played by Myanesin was considered to be in serious doubt were placed in Group 4.

I. In the first group, the successes, there were 28 cases, and these were made up as follows :

Anxiety state following traumatic experience	4
Anxiety state with physical repercussions	16
Chronic anxiety state in inadequate personality	1
Anxiety State with tension, and few or no physical repercussions	7
Total	28

Previous personality was excellent in 1, good in 23, poor in 4; that is to say, roughly 85 per cent. were good or better.

Duration of disease.—Most cases were under 12 months, but there were 6 with histories between 1½ to 3½ years.

Precipitating factors.—in 17 cases these were present—such as minor accidents, friction at home or at work, housing difficulties, etc.

Length of treatment.—In all cases the average was about 12 weeks—the longest 8 months, the shortest 1 week. 6 cases required treatment for 4 months or more, and the average duration of treatment for the remaining 22 cases was 8 weeks. This shorter period corresponded with our general clinical impression, that the Myanesin cases responded more quickly than other similar cases treated by alternative methods.

II. In the second group, the failures, there were 40 cases. Although nearly all these cases presented symptoms of anxiety and tension, there was a greater variety of conditions, made up as follows :

Chronic anxiety state in inadequate personality	8
Reactive depression	7
Passive inadequate psychopath	6
Hysterical personality with pseudo-tension	5
Mild obsessional states	4
Hypochondriasis in depressive setting	3
Involitional depression (mild)	3
Recurrent endogenous depression	3
Schizophrenia with anxiety and tension	1
Total	40

Previous personality was good in 11, poor in 29; that is, only about 28 per cent. were good.

Duration of disease.—16 cases with under 12 months' history, the remainder from 1 to 10 years or more.

Precipitating factors.—in 21 cases these were present.

Length of treatment.—Average about 6 to 7 weeks—the longest 7½ months, the shortest 3 weeks.

Dosage.—In both groups the dose aimed at was 1 grm. of Myanesin 3 times a day, but patients varied greatly in their reaction to the drug, and it was often advisable to start with ½ grm. or less twice daily. Dilution with water at the time of taking the dose was also advisable.

It was noted that the last dose of Myanesin, taken at bedtime, sometimes had a sedative effect.

Adjuvants.—These included psychotherapy in practically every case, social support in most cases, and rarely, the use of sodium amytal or amphetamine sulphate as indicated.

ILLUSTRATIVE CASES.

(1) C. C.—, male, aged 41. A married man with a good previous personality, he had served as a regular soldier and at the time of his breakdown was employed in the G.P.O. Earlier in the year he had lost his mother, to whom he was very attached. Fourteen days before being seen he had a busy day at work and when he went home he had a severe headache and his eyes felt "pulled out." He went to bed but next day he was tremulous, sweating, complaining of pain over the heart and shoulder blade, frightened and apprehensive. He could not work. He was seen on 22 May, 1952, and treated by psychotherapy and Myanesin, 1 grm. *t.d.s.* On 1 July, 1952, he was back at work, his symptoms had disappeared and he was discharged.

(2) D. M.—, male, aged 27. A young married man with a good previous personality, he had suffered a severe shock as the result of the suicide of a friend and, over a period of 8 months, he had become anxious, tense, apprehensive, and completely impotent. He was treated with Myanesin 1 grm. *t.d.s.*, by psychotherapy, and a short course of benzadrine, and at the end of 7 months his symptoms had disappeared, he was fully potent, and had made a good clinical recovery.

(3) J. F.—, male, aged 21. A young, unmarried man, he had a poor previous personality, an unsatisfactory record both at home and during his period of National Service. For some 6 months his condition had been deteriorating—the chief complaints being of anxiety and tension, accompanied by excessive perspiration, constriction of chest, choking in the throat. His outlook was paranoid, but ineffectual, and he showed poor judgment. Myanesin 1 grm. *t.d.s.* was tried for 3 months together with psychotherapy, but there was no improvement at all and his condition was regarded as one of schizophrenia. Insulin therapy was commenced.

(4) E. A. P.—, male, aged 40. A married man with a good previous personality and work record, he had in the previous two months developed feelings of acute anxiety and tension largely centred about disease phobias and probably associated with domestic stress. Psychometry revealed a basically obsessional personality. He was given Myanesin 1 grm. *t.d.s.* for 1 month without any benefit, and in view of this CO₂ inhalation was substituted.

Certain other aspects of Myanesin therapy need consideration. There is no doubt that all patients experience some definite subjective sensations after taking their medicine. In some there is a feeling of relaxed well-being, but in many the effects are far from pleasurable, the chief complaint being of giddiness, of a feeling of unsteadiness and weakness. Others complain of nausea, though vomiting does not seem to occur.

Some patients say that it makes them feel tipsy, and one man said it was like a "bottle of Scotch" and that the effect lasted for two hours. In view of these latter remarks inquiry was made as to how much alcohol there was in the elixir. In 1 tablespoonful (containing 1 grm. of Mephnesin) there are 88 minims of absolute alcohol, so that the average total daily dose would contain about a tablespoonful of absolute alcohol, and it is not thought possible that this amount could have any significant effect.

In most psychiatric conditions, and perhaps especially in anxiety states, the value of, and the need for, psychotherapy in some form is very great, but it does take time before its effect is felt by the patient, and it seemed to us that Myanesin, by providing the patient with some positive, subjective change, and often with quick relief, did pave the way for success in psychotherapy.

From our experience in this series it seems reasonable to draw the conclusion that Myanesin is a useful adjunct in the treatment of anxiety states and tension states, but that it is useless in the treatment of anxiety and tension occurring as secondary manifestations in other neurotic or psychotic conditions.

It is also to be noted that the good results are obtained mainly in those cases with a good inherent prognosis, but that chronicity is no bar to success provided the previous personality is good; and that though the successes reported with Myanesin might have occurred without it or with alternative methods, our impression, based on considerable experience, is that the Myanesin cases responded more quickly than those treated by other methods and required less in the way of psychotherapy and other adjuvants.

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