

Experience with Mentat in Hyperkinetic Children

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ABSTRACT

Forty hyperactive children were enrolled in a double-blind placebo-controlled study to receive either the active drug Mentat or placebo. One group of 20 received Mentat syrup and another a placebo. The drugs were given for 3 to 7 months in both the groups.

Evaluation was done on Yale's Behaviour Inventory before and after 12 weeks of treatment. Remarkable improvement in behavioural pattern was observed along with increase in concentration. There was significant reduction in hyperactivity and temper tantrums and improvement in language usage. Social behaviour improved in those who received Mentat treatment as contrasted with those on placebo. Two cases are described at length as illustration.

INTRODUCTION

The hyperkinetic state in children with normal I.Q. is being increasingly recognised as an important problem in paediatric practice. It interferes with their education and social behaviour. There is no satisfactory treatment except the use of amphetamine^{1,2}.

Mentat, an Ayurvedic formulation (Himalaya), has been reported to be effective in disorders of memory and attention^{3,4,5}. It was therefore, decided to study its effect on hyperkinetic states in children.

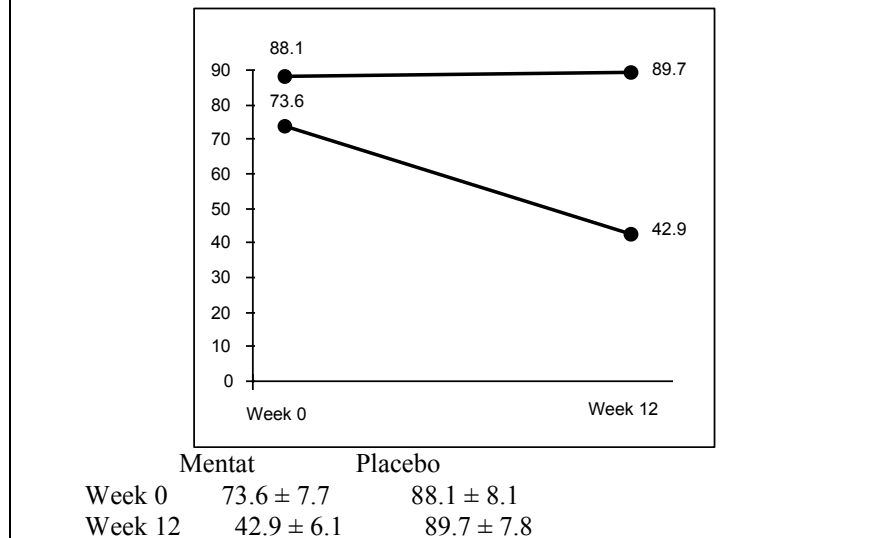
MATERIAL AND METHODS

In a double-blind, placebo-controlled study, 40 hyperactive children with normal I.Q. were randomly divided into two groups. The mean age of 20 children in each group was 6.8 years $\pm$ 6.5 months and 2.11 yrs $\pm$ 6.9 months respectively. Hyperactivity was noted due to antiepilepsy therapy in 8 children, injury in 8 children, neurological causes in 13 and functional causes in 11. One group received the active Mentat syrup while the other received an identical placebo. The initial dose of 1 tsp. t.d.s. was stepped up at 4 weeks in case of no improvement. The maximum dose used was 2 tsp. t.d.s. The pre-treatment evaluation was done by a psychologist using Yale's Behaviour Inventory⁶. The initial social quotient and I.Q. were also noted. The post-treatment evaluation was done at 12 weeks when the code was opened. In those who showed improvement, the drug was continued for 6 months.

RESULTS

Significant improvement on Yale's Behaviour Inventory was observed after 12 weeks of treatment in the group treated with Mentat. The initial pre-treatment score of 73.6 ± 7.7 was reduced to 42.9 ± 6.1 (Fig. 1). The difference at the end of 12 weeks was significant as compared to the pre-treatment score and in comparison to the placebo. But there was no reduction in Yale's score following the use of placebo in the second group (Fig. 1).

Fig. 1: Effect of Mentat on Yale's Behavioural Inventory in comparison to placebo



On decoding, it was found that the group which showed remarkable improvement belonged to the active treatment group, that is in those who received Mentat. Two cases have been described as an illustration.

Case 1

Santosh Chaturvedi, a male child 8½ years old, had hyperactivity, attention deficit with purposeless activity and would be in perpetual motion. He had developed this as a sequel to T.B. meningitis. His parents were frustrated with his behaviour. The child could not be left alone even for a few minutes.

He was included in the trial. On opening the code it was noted that he had received Mentat, 2 tsp. t.d.s. After 12 weeks there was remarkable improvement, hence the drug was continued for another 3 months. After this period the child could go alone to school, cross heavy traffic roads in the city of Bombay, and was able to do simple calculations of multiplication and division correctly.

Case 2

Uttam Bhimrao Jadhav, a 7 year old male child was brought with hyperkinetic behaviour and mild mental retardation. The patient was used to climbing on furniture, breaking windows and toys. He was using abusive language and spitting and beating other children. He was included in the trial.

There was remarkable improvement at the end of 12 weeks of therapy. His abnormal behaviour and abusive language were totally corrected. He was no more destructive or hyperactive. At the end of 3 months, when the code was broken, it was found that he too had received the active drug. Treatment with it was continued for the next 3 months. At the end of 6 months, his behaviour had changed remarkably. Instead of breaking toys, he was playing and enjoying them. He also enjoyed story books and listening to stories told to him.

DISCUSSION

We often come across aggressive children who are destructive, show purposeless action, are in perpetual motion, easily frustrated and unable to concentrate and learn due to short attention span. Various drugs and even surgical procedures have been tried, from time to time, to improve the cerebral function and improve performance, and increase cerebral circulation with a hope of improving its function^{8,9}. But no improvement was noticed. Glutamic acid has been tried by Well Malhorbo *et al.*, to increase cerebral blood flow but this failed to improve concentration¹⁰.

Pyridoxine, a chemical derivative of pyridoxine, was also tried for 6 to 12 weeks in patients and they showed mild improvement¹¹.

The present study with Mentat has shown remarkable improvement in behaviour pattern, increase in concentration, reduction in hyperactivity and temper tantrums, improvement in use of language and antisocial behaviour. Dayal, R.S. *et al.*, have also reported a similar outcome in their 60 cases with hyperactivity behaviour problems.

In our study, more than 50 to 70% improvement on Yale's Behaviour Inventory was seen in each child. The mean improvement in I.Q. was from 60.3 to 67.9, which is near normal (Fig. 2). Thus Mentat was found to be very promising. No side reaction was found during the treatment period.

Fig. 2: Effect of Mentat on IQ in comparison to placebo

	Mentat	Placebo
Week 0	60.3 ± 5.1	59.9 ± 4.7
Week 12	67.9 ± 5.6	62.8 ± 4.7

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