USE OF CLOZAPINE IN CHILDHOOD SCHIZOPHRENIA

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ABSTRACT

Childhood onset schizophrenia is a rare disorder whose prognosis is generally worse than that in the adult onset type of schizophrenia. Conventional neuroleptics have yielded inconsistent results with the risk of exposing the child to extrapyramidal and cognitive adverse effects which could interfere with proper development of the child. Effective and safe use of clozapine in children with schizophrenia has been reported. This drug is recently introduced in India and reports of its use in children are yet to come from this part of the world. This case report is on the effective and safe use of clozapine in a girl child with schizophrenia who became ill at 9 years of age.

Key words: Childhood schizophrenia, clozapine

The onset of schizophrenia is most often in the late adolescence or later but it can start rarely during childhood. The disorder is seen in 0.1 to 1% of children (Remschmidt et al., 1994). Very early onset patients only partially benefit from conventional antipsychotic treatment and are at increased risk for developing tardive dyskinesia (T.D) (Mozes et al., 1994). Clozapine has been shown to be effective in childhood-onset schizophrenia, especially in treatment resistant cases and in those intolerant to the typical neuroleptics (Frazier et al., 1994; Remschmidt et al., 1994).

Clozapine is now available in India and its use in children is yet to be reported. We report here the successful use of clozapine in a girl who had schizophrenia starting at the age of nine years.

CASE REPORT

Ms. A., a 9 year old girl was brought by her parents in May 1995 with the complaints that for the past 4 months she had been behaving differently with other children in the form of picking up quarrels and pinching and pushing them. Her academic performance was unchanged and there were no reports about any abnormal behaviour from the school. Her sleep, eating habits and self-care activities were normal. The child at this point of time was seen to be over active to talk like adults in accent and in the words used. A psychometric evaluation showed no abnormality in her psychological functioning and there was no evidence for any organicity. The child was talked to about the complaints regarding her from others which she said were baseless. No psychiatric diagnosis nor any intervention was made at this consultation.

The parents reported in November 1995 that Ms A had shown a sudden change in her behaviour for the preceding 2 weeks. She had become very inattentive towards her studies and had wandered away from home once. She had become more restless and had not been sleeping well. The day before they consulted,
the child had attempted to set fire to some clothes in the bedroom for no apparent reason. She was not sent to school for a week as she tended to wander away from school. She showed no interest at all in any academic or other activities at home. On examination at this time the girl was restless and irritable. She was unkempt and her emotional response was poor. She was disinhibited and talked about sexual matters. Her talk was incomprehensible at times. Her affect was flat. She reported auditory hallucinations in the form of hearing voices which were telling her stories. She also had visual hallucinations in the form of people performing magic before her to entertain her. These group of people, she said, generally kept a watch on where she was going with a radio and used it to communicate with her. She scored 23 on the BPRS (Overall & Gorham, 1988) at this interview. Detailed neurological evaluation including an EEG and CAT scan of the brain revealed no abnormality. A diagnosis of schizophrenia (ICD-10, WHO, 1992) was made.

She developed extrapyramidal symptoms with haloperidol and a trial of chlorpromazine led to intense drowsiness and giddiness on standing therefore she was put on trifluoperazone which was increased up to 25 mg which led to reduction in her overactive, disinhibited behaviour, and improved her sleep. The hallucinations persisted and she continued to refer to the group of people following her.

Her poor self-care, formal thought disorder and the flat affect persisted. She could not be sent to school as she was very dull most of the time and showed little interest in any activity. This status continued for the next 8 weeks. Her BPRS score remained at 17 after the initial improvement.

In view of the lack of progress in her response to the treatment, clozapine was started in February 1996 after the required prerequisite evaluations. At the end of two weeks she was completely withdrawn from trifluoperazone and the dosage of clozapine reached 100 mg/day. A maximum dose of 200 mg/day was reached in 4 weeks time and was maintained for 8 weeks. By the end of 3 months of treatment with clozapine the BPRS score came down to 7 with a palpable change in her affective responses. Her thought process was clear and the overactivity and restlessness were not observed. She began to show interest in going back to school and in attending informal classes in classical music. The parents were hesitant to put her in a special school meant for children with learning disability and other academic difficulties in the city after the school accepted to take up Ms. A on a trial basis.

Ms. A has been attending this school for the past 12 months during which she has shown steady and progressive changes in her academic and social activities. She also showed keen interest and participated in sports, dramatics and other extracurricular activities at the school. It is planned to put her back in the regular school from the next academic year. The score on the BPRS remained between 7 and 9 throughout the follow-up period.

After the 2 months of clozapine therapy she exhibited some side-effects of the drug in form of sialorrhoea, daytime drowsiness and slurring of speech. These were managed by giving the maximum dose at night, and adding 2 mg of trihexyphenidyl/day. Attempts at reducing the dosage of clozapine were followed by return of overactivity, disinhibition, inattention, aggressiveness and insomnia. Granulocyte counts remained within normal limits throughout the treatment period.

DISCUSSION

The mean age at diagnosis of childhood-onset schizophrenia was reported to be between the ages of 9 and 10 years. The onset was very often insidious with a predominance of boys and the symptoms frequently included flat affect and visual hallucinations (Asarnow et al., 1994). The case reported here fitted these general descriptions but for the sex of the patient.

Typical neuroleptics like haloperidol, loxapine, pimozide, thiothixene have been used
in childhood onset schizophrenia with positive results (Spencer & Campbell, 1994). However the risk for developing extrapyramidal symptoms including T.D. are more with the typical neuroleptics compared to clozapine. It has also been shown that chronic treatment with typical neuroleptics may impair cognitive functions (Lee et al., 1994). The adverse motor and cognitive effects of typical neuroleptics are of crucial importance in childhood as they could interfere with proper motor and cognitive development of the child. Clozapine with its reduced risk for producing T.D. (Tamminga et al., 1994) and better efficacy in ameliorating cognitive dysfunctions (Lee et al., 1994) is thus ideally suited for use in children with schizophrenia.

This case report shows effective and safe use of clozapine in childhood-onset schizophrenia following the recommended precautions.

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