ACUTE CATATONIA AFTER A SINGLE DOSE OF ECSTASY

To the Editor:

Few cases of acute psychotic episode after a single dose of ecstasy (3,4-methylenedioxymethamphetamine, or MDMA) are reported in the literature (Gouzoulis et al., 1993; Vaiva et al., 2001). In these reports, the most frequent symptoms are psychomotor excitation and delusion with mixed megalomanic, paranoid, and sexual content. The psychotic episode has an acute onset and chronic, oscillating course. Only two reports are available in the literature on acute catatonic episodes after ecstasy intoxication (Maxwell et al., 1993). These authors described two 17-year-old female adolescents who, after one or two single doses of ecstasy, experienced an acute-onset, transient catatonia associated with hyponatremia which lasted, respectively, 54 and 40 hours; recovery was spontaneous without specific medications.

We describe an adolescent who, after his first and only dose of ecstasy, presented a more prolonged catatonic episode and recovered completely after clozapine treatment. The patient and his parents gave consent to the publication of this report.

A 16-year-old male with an uneventful personal history (except for an inhibited temperament) was admitted to our division with a severe catatonic syndrome, motoric immobility, extreme negativism and mutism, bladder paralysis, and refusal to eat. Twenty-four hours before he had taken, for the first time in life, one tablet of ecstasy mixed with alcohol (whiskey). During the next 24 hours he showed an abrupt confusional state with unstructured paranoid delusion, followed by mutism and then a complete catatonic syndrome. He had muscular rigidity with extremely slow, sporadic movements, closed eyes, unexpressive face, fecal and urinary retention (necessitating catheterization), and refusal to eat and drink (necessitating parenteral nutrition). Except for the signs of a urinary infection after catheterization of the bladder, the results of all biological examinations (computed tomography, EEG, blood chemistry) were normal. A first therapeutic attempt with intravenous benzodiazepines, and then with intravenous haloperidol, left the clinical picture unchanged. After 5 days clozapine treatment was started; the dosage was increased 25 mg/day, up to 150 mg/day.

One week after the initiation of clozapine treatment, the patient's psychomotor symptoms showed progressive improvement, he slowly began to eat and drink, the catheter was removed from his bladder, but the failure to speak still persisted. During the second week of treatment he began to talk. He appeared confused, with persecutory and megalomanic ideas, anxious preoccupations about somatic integrity, and amplified sensory perceptions (particularly auditory). After this delusional phase, during the third week, the clinical response to clozapine was dramatic, the patient rapidly improved, and he was discharged after 23 days of hospitalization. Follow-up visits after 6 weeks and after 4 months confirmed a complete recovery in social functioning and school performance.

Catatonic disorder can occur in children and adolescents (Cohen et al., 1999). The great majority of cases reported in the literature are part of a schizophrenic or a mood (prevalently bipolar) disorder. Catatonic episodes with organic causes are much more rarely reported. Only seven cases of catatonia due to a general medical condition were described in the past 20 years in children and adolescents, and only two showed a transient catatonia related to drug intoxication (ecstasy) (Maxwell et al., 1993). To our knowledge, our report is the first describing a severe and persisting catatonic episode after the first exposure to a single dose of ecstasy in an adolescent, who completely recovered after treatment with an atypical antipsychotic.

A combined hyposerotonergic and mesolimbic hyperdopaminergic condition has been hypothesized to occur a few hours after taking ecstasy (White et al., 1996). Clozapine, as well as other atypical antipsychotics with both serotonergic and dopaminergic action, may be specifically effective in the control of these episodes.

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