# Letters

## Neurological and Psychopathological Sequelae Associated With a Lifetime Intake of 40,000 Ecstasy Tablets

TO THE EDITOR: The medical and psychopathological consequences of both acute and chronic "ecstasy" (MDMA, MDA, and derivatives) consumption have been extensively described, but little is known with respect to the relationship between both severity and persistence of these disturbances and lifetime number of ecstasy tablets ingested. At-risk MDMA intake seems to be related to long-term functional dysregulation in 5-HT<sub>2</sub> pathways, resulting in altered regulation of mood, impulse control, and memory.<sup>1,2</sup> Ecstasy consumption has spread since the late '80s, and the reduction in price observed over the last few years has possibly increased access to the drug. Clinicians are now meeting with a generation of patients who have been exposed to the drug for more than a decade. In this report, we describe both the transient and persisting sequelae associated with an unusual amount of ecstasy consumption.

#### Case Report

Mr. A, 37 years old, used ecstasy between the ages of 21 and 30. For the first 2 years, he took 5 tablets every weekend, escalating to an average daily use of 3.5 tablets for the next 3 years, and further escalation to an average of 25 tablets daily over the next 4 years. An estimate of lifetime consumption yielded a total intake of more than 40,000 tablets. At the time of his presentation, Mr. A reported current can-

nabis consumption, together with a previous history of polydrug misuse (i.e., solvents, benzodiazepines, amphetamines, LSD, cocaine, heroin). After three episodes of "collapsing" at parties, Mr. A finally stopped his ecstasy use. For a few months, he felt as if he was still under the influence of ecstasy and suffered several episodes of "tunnel vision." He eventually developed severe panic attacks, recurrent anxiety, depression, muscle rigidity (particularly at the neck and jaw levels), functional hallucinations, and paranoid ideation. His family and before-drug-use psychiatric history were negative. The Mini-Mental State Exam revealed disorientation to time, poor concentration, and short-term memory difficulties. Decrease in level of cannabis intake led both to disappearance of his paranoid ideas and hallucinations and reduction of his panic attacks, but remaining symptomatology persisted. Administration of the Wechsler Memory Scale  $(3rd Edition)^3$  suggested the existence of global memory-function impairment, with no subtest score being above the 10th percentile. Assessment of daily functioning skills identified major behavioral consequences of his memory loss (i.e., repeating activities several times). Although Mr. A was able to fully understand the instructions given, his concentration and attention were so impaired that he was unable to follow the sequence of the tasks required. A structural MRI brain scan revealed no focal cerebral lesions; specifically, both temporal lobes showed normal symmetrical hippocampal areas. The structural areas of the "Dealy-Brion" system were normal. There was no evidence to suggest atrophy. Mr. A was then prescribed olanzapine 10 mg and admitted to a brain-injury unit, where there was some improvement of

his memory skills as a result of the use of compensatory strategies.

#### Comment

To our knowledge, this is the largest amount of ecstasy lifetime consumption ever described, the heaviest lifetime intake previously reported being around 2,000 tablets.<sup>2</sup> Although much information is self-reported and might have been affected by Mr. A's memory impairment, the history given was confirmed by notes from another service he attended just after having stopped ecstasy use.

All ecstasy misusers would develop a (mild-degree, in most cases) serotonin syndrome after acute drug intake, which is characterized by enhanced physical activity, hyperthermia and sweating, increased muscle rigidity, rhabdomyolysis, hyperreflexia, trismus, jaw-clenching, myoclonus, tremor, and nystagmus.<sup>4</sup> An additional, non-serotonergic mechanism of MDMA activity at the neuromuscular junction-level has recently been suggested.<sup>5</sup> Although these observations relate to acute MDMA intoxication effects, they might partly explain the persistent muscle rigidity of which Mr. A was complaining. The "tunnel vision" effect observed by Mr. A in the first few months after withdrawing from MDMA had never been reported before in this context. The neurocognitive profile here described was very similar to that shown by current heavy ecstasy users; it has been suggested that the extent of memory decline positively correlates with intensity or frequency of ecstasy consumption.<sup>6</sup> It is also confirmed here that selective impairments of neuropsychological performance associated with regular ecstasy use are not reversed by prolonged abstinence.

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Contrary to results of other neuroimaging observations,<sup>7</sup> Mr. A's brain scan did not show any gross cerebral abnormalities, especially at the hippocampal level.

We feel that this case report adds to the existing limited knowledge of persistent sequelae associated with heavy and regular ecstasy intake.

*Mr.* A gave consent to his history being reported to a medical journal.

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## Parental Magico-Religious Illness Beliefs in an Adolescent Girl With Major Depression and Systemic Lupus Erythematosus

To THE EDITOR: We report the case of a 15-year-old girl with major depression, which occurred in the course of systemic lupus erythematosus (SLE). We choose here to describe how the understanding of her parents' illness beliefs has been of therapeutic support in the psychiatric follow-up. Actually, many aspects of psychiatry, as diagnosis, illness behavior, help-seeking, and perceived quality of care, are affected by illness beliefs.<sup>1</sup> This is why medical anthropology and transcultural psychiatry encourage understanding of patients' own illness experiences.<sup>1,2</sup>

#### Case Report

Ms. A was born in France, near Paris. She lived with her parents who were Muslim and came from Algeria, having left 20 years ago. She had two older brothers. A younger sister died at the age of 3 months from a cardiac malformation when Ms. A was 8 years old. Her oldest brother has had non-Hodgkin's lymphoma, in remission for 3 years. Her SLE was diagnosed 2 years ago, but began at the age of 10 with a malar rash and arthritis. The treatment, with a favorable outcome, consisted of hydroxychloroquine and prednisone, 10 mg/day.

When she was referred to consultation–liaison psychiatry, Ms. A was troubled by feelings of sadness, insomnia, and worthlessness, without suicidal intent. These symptoms of major depression (by DSM–IV) had appeared several weeks earlier. There was no evidence of SLE activity or neurological symptoms. Ms. A had no history of psychiatric disorders. The outpatient psychiatric follow-up, with a favorable outcome, lasted for  $1\frac{1}{2}$  years and included individual psychotherapy and psychiatric consultation with her family in our transcultural psychiatric clinic.<sup>3</sup>

Her parents had cultural explanations that coexisted with biomedical meanings. Ms. A and her parents had been invited to a wedding in Algeria when she was 14. According to them, the malar rash might be interpreted as make-up by the bride's parents. Ms. A might be perceived as a possible rival to the bride, and someone could have thrown the evil eye on Ms. A and her family in order to neutralize her and protect the bride. Another cultural explanation was sorcery. Her mother had asked herself whether the spirit of Ms. A's younger sister, who had died of cardiac malformation, could be in Ms. A's body. Despite these magico-religious beliefs, no traditional help-seeking experiences were described. Ms. A disagreed with her parents' representations, but she was sensitive to the possible role of her sister's death.

#### Discussion

This case illustrates how, in consultation-liaison psychiatry, it is essential to understand patients' own illness experience, especially in immigrants or in immigrants' children.<sup>3</sup> The most apparent symptom of the disease, the malar rash, supported the construction of one of the parental explanations, the evil eye. Taking into account those ideas and the family conflicts around the important position of Ms. A in the series of family misfortunes (the younger sister's death, the brother's lymphoma, and the SLE) was a major issue for psychiatric treatment and was accompanied by progressively more flexibility and a wider range of parental beliefs. The transcultural setting, a