NOT ADVERSE

Letters to the Editor

Effects of "Ecstasy" Blocked by Serotonin Reuptake Inhibitors

Sir: 3,4-Methylenedioxymethamphetamine (MDMA), better known as Ecstasy, is a synthetic amphetamine analog that can be classified as a phenethylamine-type hallucinogen. The drug is commonly linked with "rave" dance parties, and its use has become increasingly prevalent in recent years.[1] The primary mechanism of action of this agent is thought to be via indirect serotonergic agonist effects with release of serotonin stores and blocking of serotonin reuptake, although the drug also affects other neurotransmitter systems.[2,3]

MDMA appears to be taken up by neurons through a fluoxetine-sensitive carrier mechanism; preclinical studies indicate that fluoxetine attenuates MDMA-induced serotonin release in prefrontal cortex and striatum in a dose-dependent fashion.[4] However, there are clinical reports that fluoxetine taken together with MDMA ingestion did not interfere with the subjective effects of this agent.[5] We report 2 patients in whom concurrent chronic use of a selective serotonin reuptake inhibitor (SSRI) resulted in blocking the usual subjective effects of MDMA.

Case 1. Ms. A, a 21-year-old patient, presented with trichotillomania for which citalopram, a highly selective SRI, was prescribed at 20 mg/day. Ms. A was an occasional user of Ecstasy, but had not reported use for some months. After several months of citalopram treatment, she attended a rave and had her usual dose of Ecstasy—one half of a tablet. She reported that instead of the typical subjective "rush" that she experienced on this drug, she felt as though she had not in fact taken any substance.

Case 2. Ms. B, a 19-year-old patient, presented with trichotillomania for which she was treated with paroxetine at 20 mg/day for several months. She then started attending raves, and tried Ecstasy. She felt no effects at all from this agent. In contrast, the use of amphetamines did result in a high. Ms. B elected to discontinue paroxetine to see whether this would allow her to experience an Ecstasy high. In the absence of paroxetine, she was in fact able to do so.

These 2 case reports are consistent with the hypothesis that MDMA or a metabolic derivative must be taken up by a serotonin reuptake mechanism to exert its effects. Alternatively, given previous reports that SSRIs, which down-regulate 5-HT_2 receptors after chronic administration, block the psychedelic effects of other hallucinogenic 5-HT_2 agonists such as lysergic acid diethylamide (LSD),[6] a postsynaptic mechanism for the effects noted here could be hypothesized.

Differences in MDMA effects between these cases and previously published reports[5] may reflect the fact that in the earlier cases fluoxetine was not used on a chronic basis prior to MDMA use. We cannot, of course, exclude the possibility that our patients received an agent other than MDMA. It may be speculated that SSRIs could be useful in helping patients who have difficulty stopping Ecstasy use, although the possibility of adverse interactions between SSRIs and Ecstasy should also be borne in mind.[7]

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Chorea and Tardive Dyskinesia in a Patient Taking Risperidone

Sir: The antipsychotic risperidone has been available in the United States since 1994.[1] It has been widely used, as studies have shown that extrapyramidal symptoms are less common than with other antipsychotics,[2] and that the incidence of side effects causing discontinuation is low.[1] Risperidone was also shown to be effective and have minimal side effects in adolescents[3] and children.[4] Over time, other, more significant potential side effects have been identified: neuroleptic malignant syndrome,[5–8] lengthening of the QT interval,[9] obsessive-compulsive disorder,[10,11] and tardive dyskinesia.[12–15] There have been no reports of chorea in association with risperidone in the literature. We report a case of chorea and tardive dyskinesia associated with risperidone use.

Case report. Ms. A, a 13½-year-old white female, had a family history of depression, enmeshment, and benign neglect and a personal history of aggression, defiance, and noncompliance at the time she transferred her care to one of the authors (N.B.C.). Although she had taken many different psychiatric medications in the past, her medical history was available only from her family; previous medical records were unavailable. According to family report, risperidone had been the most effective medication in controlling her symptoms, especially aggression. At the time of transfer, Ms. A was taking risperidone, 6 mg/day. She had been taking risperidone for almost a year. She was doing well in a class for severely behaviorally handicapped