AMISULPRIDE-INDUCED BOTH OCULOGYRIC CRISIS AND TRISMUS

Sir,

Here we describe a young man who developed oculogyric crisis and trismus while on amisulpride, a newer antipsychotic drug.

A 24-year-old male engineering student was suffering from schizophrenia for the last 6 months. His past history, as well as his family history, was noncontributory. His personal history did not reveal any evidence of prenatal, perinatal, or postnatal brain damage. In the initial phase of his illness, he possessed marked obsessive compulsive symptoms like ruminations, compulsive checking, and magical thinking. Hence he was put on fluvoxamine 50 mg/day, which was gradually increased to 200 mg/day over a period of 3 weeks without any improvement. In fact, at the end of 4 weeks of fluvoxamine therapy, he exhibited psychotic symptoms in the form of social withdrawal, suspiciousness, aggression, disturbed biological functions, and, occasionally, muttering to self. Positive findings in the mental status examination at that time were poor rapport, restricted affect, delusion of persecution, and auditory hallucinations. The dose of fluvoxamine was stopped immediately, and he was switched to amisulpride 50 mg/day, which was increased to 250 mg/day over a period of 2 weeks. On day 3 of amisulpride 250 mg therapy, he developed oculogyric crisis in the form of sudden upward

rolling of both the eyeballs, and it was so severe that only sclera was visible. His eyes were fixed in one position. Simultaneously he exhibited trismus in the form of limitation in opening the mouth associated with in speaking and swallowing. At the same time, he also started showing abnormal behavior in the form of hitting relatives, destruction of property, and extreme restlessness. He would beg for help to relieve these symptoms. Apart from the dystonic reaction, his medical and detailed neurological examinations, including fundus, were normal. He was taken to the emergency section, where he was given intravenous promethazine 50 mg, following which there was a remission of all symptoms, including abnormal behavior. The entire dystonic reaction persisted for 60 minutes. Four hours later, he again exhibited the same symptoms, though he had not been given any dose of amisulpride after the first episode of dystonia. Again, it was treated with intravenous promethazine. No dystonic or other movement disorders were noticed in any other parts of the body. Subsequently, the dose of amisulpride was reduced to 200 mg/day, and trihexyphenidyl 4 mg was added without any further recurrence of dystonic reaction. All investigations, including CT head, were found to be within normal limits.

Amisulpride is a substituted benzamide derivative belonging to the second-generation antipsychotic group. It has negligible affinity for 5 HT2 receptors and is specific for dopamine D2 and D3 receptors. It binds preferentially to these receptors in the limbic and hippocampal system,[1] and this action may contribute to lower incidence of extrapyramidal side effects. Although extrapyramidal side effects are known to occur with amisulpride, their occurrence is relatively similar to that with olanzapine 5 to 20 mg/day.[2] Little information is available on acute dystonic reaction associated with amisulpride. To our knowledge, the first side effect in the form of dystonia related to amisulpride is reported as recently as in 2006.[3] In our case, use of the Naranjo adverse drug reaction (ADR) Probability Scale indicated a highly probable relationship between the dystonic reactions and short-term exposure to amisulpride therapy.[4] Possibility of fluvoxamine-withdrawal dystonia is remote because of its rare occurrence and lack of close temporal correlation as there was a gap of almost 2 weeks between stoppage of fluvoxamine and emergence of side effects. Low doses of amisulpride (<10 mg/kg) preferentially block D2/D3 receptors, resulting in enhanced dopamine transmission; higher dosages preferentially antagonize postsynaptic D2/D3 receptors, resulting in reduced dopamine transmission.[1] Our case did not receive high dose of amisulpride and still showed severe dystonia, which suggests an idiosyncratic reaction.

D. N. MENDHEKAR, BISHT YAJUVENDRA[1], ASHISH AGGARWAL[1]
Consultant Psychiatrist, Pratap Nagar, Delhi, India
[1]Resident, Department of Psychiatry,
GB Pant Hospital, New Delhi

Correspondence:
Dr. D. N. Mendhekar,
10867/19, Pratap Nagar, Near Metro Pillar 129,
Delhi - 110 007, India. E-mail: dnmendhekar@vsnl.net

REFERENCES

1. McKeage K, Plosker L. Amisulpride: A review of its use in the management of schizophrenia. CNS Drugs 2004;18:933-56.
2. Mortimer A, Martin S, Loo H, Peuskens J; SOLIANOL Sudy Group. A double blind,

randomized comparative trial of amisulpride versus olanzapine for 6 months in the treatment of schizophrenia. Int Clin Psychopharmacol 2004;19:63-9.
3. Zones R. Amisulpride: First report of dystonia: A case report. Adis Int 2006;1093:3-18 .
4. Naranjo CA, Busto U, Sellers EM, Sandor P, Ruiz I, Roberts EA, *et al.* A method for estimating the probability of adverse drug reactions. Clin Pharmacol Ther 1981;30:239-45.

Author Help: Online Submission of the Manuscripts

Articles can be submitted online from http://www.journalonweb.com. For online submission articles should be prepared in two files (first page file and article file). Images should be submitted separately.

1) **First Page File:**
Prepare the title page, covering letter, acknowledgement, etc., using a word processor program. All information which can reveal your identity should be here. Use text/rtf/doc/pdf files. Do not zip the files.

2) **Article file:**
The main text of the article, beginning from Abstract till References (including tables) should be in this file. Do not include any information (such as acknowledgement, your names in page headers, etc.) in this file. Use text/rtf/doc/pdf files. Do not zip the files. Limit the file size to 400 kb. Do not incorporate images in the file. If file size is large, graphs can be submitted as images separately without incorporating them in the article file to reduce the size of the file.

3) **Images:**
Submit good quality color images. Each image should be less than 1024 kb (1 MB) in size. Size of the image can be reduced by decreasing the actual height and width of the images (keep up to about 6 inches and up to about 1200 pixels) or by reducing the quality of image. JPEG is the most suitable file format. The image quality should be good enough to judge the scientific value of the image. Always retain a good quality, high resolution image for print purpose. This high resolution image should be sent to the editorial office at the time of sending a revised article.

4) **Legends:**
Legends for the figures/images should be included at the end of the article file.