Letter to the Editor

Lamotrigine-Induced Manic Switch: A Report of 2 Cases

To the Editor: Lamotrigine is currently used for treatment of bipolar depression alone or as an adjunct to other drugs. The exact mechanism of the antidepressant action of lamotrigine is not known. Lamotrigine used as an adjuvant mood stabilizer has been reported to induce mania[1] and hypomania[2] in case reports. Here we present 2 cases of lamotrigine-induced switch, 1 in which lamotrigine was used as a single agent and another in which it was added in a very small dose as an adjuvant.

Case 1. Mr A, a 24-year-old single male university graduate, had a family history of bipolar affective disorder in a grandfather and unspecified psychosis in a maternal uncle. He presented in 2008 with a 2-year history of episodic illness characterized by an episode of mania (*DSM-IV* criteria) lasting for 6 months treated with olanzapine (10 mg/d) and risperidone (2 mg/d) and an episode of moderate depression with somatic symptoms lasting for 11.5 months characterized by pervasive low mood, anhedonia, loss of interest in pleasurable activities, hopelessness, wish to die, somatic symptoms, and disturbed biofunctions. Results of routine investigations and workup for organicity were within normal limits. He was started on lamotrigine 25 mg at bedtime, and the dose was gradually increased to 200 mg. Two weeks after initiation of the drug, he developed irritability and anger outbursts on a dose of 150 mg. When the dose was increased to 200 mg/d, he developed mania along with mood-congruent psychotic symptoms (his Young Mania Rating Scale[3] [YMRS] score was 20). As a result, lamotrigine was tapered and stopped over 2 weeks and lithium was added (300–1,200 mg/d) along with risperidone (2–3 mg/d). His symptoms improved over 2 weeks. He has remained well after discharge from the hospital.

Case 2. Mr B, a 23-year-old single man, had a family history of alcohol dependence syndrome in his father and past history of childhood oppositional defiant disorder, cannabis dependence syndrome (currently abstinent), and harmful alcohol use. He presented with an episodic illness since 19 years of age characterized by 1 manic episode (*DSM-IV* criteria) without psychotic symptoms lasting 3 months treated with risperidone 4 mg/d and clonazepam 1.5 mg/d. He discontinued these medications after 1 year. He had another episode of mania (*DSM-IV* criteria) lasting for 3 months at 21 years of age and was treated with lithium carbonate 1,600 mg/d, risperidone 8 mg/d, and trihexyphenidyl 4 mg/d. He continued taking lithium, and risperidone was tapered off.

He most recently presented in 2008 with pervasive low mood, loss of interest in pleasurable activities, hopelessness, somatic symptoms, and disturbed biofunctions of 3 weeks' duration. He was diagnosed with bipolar affective disorder, current episode moderate depression with somatic symptoms. Lamotrigine 25 mg/d was added to lithium. A week later, he started to exhibit elated mood, overactivity (goal directed), overfamiliarity with people, grandiose plans of starting a business, increased cigarette smoking, and decreased need for sleep. He was admitted and diagnosed with bipolar affective disorder, current episode mania (lamotrigine induced). Urine cannabis screen was negative. He rated 13 on the YMRS and was started on sodium valproate 1,000 mg/d and tablet clonazepam 3 mg/d along with the lithium carbonate he was receiving. His symptoms improved over a duration of 3 weeks, and he was discharged. He has remained well after discharge on regular medications.

In the first case, manic symptoms developed when lamotrigine was gradually hiked to 200 mg/d. The patient was not on any other medications during this time, and lamotrigine was the sole agent that might have induced a manic switch. This is possibly the first such case reported. In the second case, the patient developed a manic switch on the addition of a very small dose of lamotrigine. Lamotrigine may induce a switch through its ability to decrease glutamate release, thereby reducing binding to the *N*-methyl-D-aspartate receptor complex.[4]

References

1. Raskin S, Teitelbaum A, Zislin J, et al. Adjunctive lamotrigine as a possible mania inducer in bipolar patients. *Am J Psychiatry*. 2006;163(1):159–160.
2. Margolese HC, Beauclair L, Szkrumelak N, et al. Hypomania induced by adjunctive lamotrigine[letter]. *Am J Psychiatry*. 2003;160(1):183–184.
3. Young RC, Biggs JT, Ziegler VE, et al. A rating scale for mania: reliability, validity and sensitivity. *Br J Psychiatry*. 1978;133(5):429–435.
4. Sporn J, Sachs G. The anticonvulsant lamotrigine in treatment-resistant manic-depressive illness. *J Clin Psychopharmacol*. 1997;17(3):185–189.

Nanjayya Bhagyalakshmi Subodh, MD
drsubodhbn2002@gmail.com
Deepak Jayarajan, MD
Prabhat Kumar Chand, MD, DNB
Vivek Benegal, MD, DPM
Pratima Murthy, MD, DPM

Author affiliations: De-Addiction Centre, Department of Psychiatry, National Institute of Mental Health and Neurosciences, Bangalore, India.

Potential conflicts of interest: None reported.
Funding/support: None reported.
Published online: February 17, 2011 (doi:10.4088/PCC.10l01034).
Prim Care Companion CNS Disord 2011;13(1):e1