

**Lamotrigine-Induced Tactile Hallucination**

**To the Editor:** Lamotrigine is an antiepileptic and mood-stabilizing medication that has a role in treating bipolar depression, as highlighted by Geddes et al.<sup>1</sup> Villari et al<sup>2</sup> report rare but serious cutaneous side effects of lamotrigine, including Stevens-Johnson syndrome and toxic epidermal necrolysis. They also describe infrequent psychiatric manifestations such as irritability, delusions, and auditory and visual hallucinations associated with lamotrigine.<sup>2</sup>

We present a case of tactile hallucination associated with lamotrigine in a patient with bipolar II disorder.

**Case report.** Mr A is a 44-year-old white man with a 20-year history of *DSM-IV* bipolar II disorder with predominantly depressive episodes. He has had at least 1 episode of depression per year for the last 20 years, which were often preceded by hypomanic episodes. He had never experienced psychotic symptoms, in any context, including tactile hallucinations. Given the predominance of depressive symptoms in his illness, Mr A was initially treated by his general practitioner with multiple antidepressants, including sertraline, paroxetine, and citalopram. He was initiated on a combination of sodium valproate 400 mg twice daily and escitalopram 20 mg daily after experiencing a hypomanic switch from citalopram. Mr A continued to have depressive symptoms while taking this combination, and a trial of lamotrigine was therefore considered after his referral to psychiatric services. Lamotrigine was slowly titrated to 100 mg twice daily while escitalopram was discontinued. He continued taking valproate at the dose of 500 mg once daily. Mr A's mental state improved significantly on this combination.

Four weeks after reaching the target dose of 100 mg twice daily of lamotrigine, Mr A developed sensations of "tiny insects crawling over the skin." Although he never saw the insects, he was fairly convinced about their presence and constantly checked his skin. The distribution of the sensations was widespread and changeable each time, sometimes affecting multiple sites simultaneously. After Mr A confirmed the absence of insects over the affected area, the sensation often moved to a different location. He displayed no rash or systemic symptoms that may be associated with Stevens-Johnson syndrome or toxic epidermal necrolysis. His mental state remained stable otherwise, with no other psychotic or affective features. However, his tactile hallucination caused significant distress to him and mandated reduction in the dose of lamotrigine to 50 mg twice daily. While the reduced dose brought no relief to Mr A, his symptoms resolved fully approximately 2 days after cessation of lamotrigine.

Unfortunately, an emerging depressive episode was noted after the cessation of lamotrigine. The decision was made in agreement with Mr A to rechallenge lamotrigine as monotherapy, as he had the best therapeutic response from lamotrigine. He was recommenced on 25 mg once daily on alternate days initially with the plan to titrate the dose gradually. The same sensation of insects crawling over his skin reappeared on the day of recommencement. He persevered until he reached the dose of 50 mg twice daily; however, he could no longer tolerate the sensations. His tactile hallucinations resolved again in 2 days, after lamotrigine was discontinued.

Hallucinations are uncommon side effects of lamotrigine, as described by Faught et al.<sup>3</sup> Villari et al<sup>2</sup> have hypothesized that, although the exact mechanism is not clear, the inhibitory effect of lamotrigine on glutamate release may have a role in inducing psychotic symptoms. While cases of visual or auditory hallucinations associated with lamotrigine have been reported, reports of tactile hallucination from lamotrigine have not yet been published, to the best of our knowledge. Naranjo Scale devised by Naranjo et al<sup>4</sup> was applied to this case to objectively assess the likelihood of an adverse reaction from lamotrigine, with a result supporting a probable adverse reaction. We inform clinicians that tactile hallucination may be an uncommon adverse effect of lamotrigine.

**REFERENCES**

1. Geddes JR, Calabrese JR, Goodwin GM. Lamotrigine for treatment of bipolar depression: independent meta-analysis and meta-regression of individual patient data from five randomised trials. *Br J Psychiatry*. 2009;194(1):4-9.
2. Villari V, Rocca P, Frieri T, et al. Psychiatric symptoms related to the use of lamotrigine: a review of the literature. *Funct Neurol*. 2008;23(3):133-136.
3. Faught E, Morris G, Jacobson M, et al; Postmarketing Antiepileptic Drug Survey (PADS) Group. Adding lamotrigine to valproate: incidence of rash and other adverse effects. *Epilepsia*. 1999;40(8):1135-1140.
4. Naranjo CA, Busto U, Sellers EM, et al. A method for estimating the probability of adverse drug reactions. *Clin Pharmacol Ther*. 1981;30(2):239-245.

**Han Kyung Oh, MBBS**

hankyung.oh@health.sa.gov.au

**Prashant Tibrewal, MBBS, MD, FRANZCP**

**Rohan Dhillon, MBBS, FRANZCP, MClInSc**

**Author affiliations:** Department of Psychiatry, The Queen Elizabeth Hospital (all authors), and Discipline of Psychiatry, University of Adelaide (Drs Tibrewal and Dhillon), Adelaide, Australia.

**Potential conflicts of interest:** None reported.

**Funding/support:** None reported.

*J Clin Psychiatry* 2014;75(11):e1330 (doi:10.4088/JCP.14cr09099).

© Copyright 2014 Physicians Postgraduate Press, Inc.