Lamotrigine-Induced Vaginitis and Dysuria in an Adult Woman With Bipolar Depression

To the Editor: We report a case of lamotrigine-induced vaginitis and dysuria that resolved after cessation of lamotrigine therapy and recurred upon reintroduction of lamotrigine. Urogenital side effects have rarely been associated with lamotrigine therapy; however, there are no published case reports in the literature.

Case report. Ms A, a 29-year-old white woman, presented to our clinic in July 2009 with the diagnosis of bipolar depression (*DSM-IV-TR* bipolar disorder type II). She had been taking quetiapine extended release for the last 6 months, but her symptoms of depression did not resolve and were interfering with her daily functioning at work and home and in relationships. She was prescribed lamotrigine 25 mg/d in a titrating dose. She was started on 25 mg for first 2 weeks, and the dosage was later increased to 25 mg twice a day. She was scheduled for follow-up at 4 weeks.

Before her scheduled follow-up, Ms A requested an urgent appointment at the end of her third week of treatment secondary to intense itching and burning in the vulvar area with pain on micturition. She denied using any topical preparation on the vulvar area or taking any local or systemic medication. She denied having any sexual activity during the last 3 weeks. After careful detailed history was taken, no potential cause for her symptoms was discovered, and her vaginitis symptoms were temporally related to the start of lamotrigine. She was asked to stop lamotrigine, and a referral to a primary care physician was made. Gynecologic findings revealed normal external genitalia, and speculum examination was significant only for mild erythema. Bimanual examination was normal and revealed no uterine or adnexal tenderness. Saline wet mount of vaginal secretion was negative for trichomonads or cue cells. Potassium hydroxide wet mount was negative for budding yeast and hyphae. Complete blood picture and urinalysis results were within the normal range.

Ms A's symptoms completely resolved after a week without any treatment. After detailed explanation and discussion about the possible role of lamotrigine in causing vaginitis and dysuria, Ms A consented to be rechallenged with lamotrigine. Her symptoms recurred within 3 days with similar intensity but without dysuria. The symptoms lasted for about 3 days and subsided by themselves without any treatment or stopping lamotrigine rechallenge. The patient acknowledged similar symptomatology and intensity as in the previous episode. She declined any further gynecologic examination. Lamotrigine treatment was stopped, and she was switched to a different class of medication for her bipolar depression symptoms.

Lamotrigine is an antiepileptic agent originally developed as an anticonvulsant for seizure disorder, but now it appears to have wider applications for use in partial and generalized seizures; affective disorders, particularly bipolar depression; anxiety disorders; and pain conditions. Lamotrigine acts by inhibition of glutamate release through blockade of voltage-sensitive sodium channels and stabilization of neuronal membrane. Lamotrigine may selectively influence neurons that synthesize glutamate and aspartate.[1] Common side effects include dizziness, headache, blurred or double vision, lack of coordination, sleepiness, nausea, vomiting, insomnia, tremor, rash, fever, abdominal pain, back pain, tiredness, and dry mouth.[2]

Vaginitis is an inflammatory condition in which the vaginal mucosa is inflamed due to a variety of insults such as infections, irritations from chemicals, and medications. Although rare, urogenital side effects attributed to lamotrigine include dysmenorrhea, urinary frequency, dysuria, and vaginitis. The product manufacturer's package insert reports vaginitis occurring in 4% of patients taking lamotrigine.[3] The exact pathophysiology of lamotrigine-induced vaginitis is unknown. The symptoms of our patient were temporally associated with lamotrigine therapy and subsided after cessation of therapy. When she was rechallenged, symptoms recurred, thus establishing an association with lamotrigine therapy. Other possible contributing causes to her symptoms were excluded.

This case highlights the importance of an uncommon side effect that should always be considered and discussed as part of psychoeducation with women taking lamotrigine therapy.

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Mohammad Jafferany, MD
mjafferany@yahoo.com
Farhat Shireen, MD
Ali Ibrahim, MD

Author affiliations: Synergy Medical Education Alliance, Saginaw, Michigan.
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