Depression and Devic's Syndrome

TO THE EDITOR: Devic's syndrome (neuromyelitis optica) is a rare neurological condition (<5 per 100,000 individuals) that involves optic neuritis and transverse myelitis, usually without involvement of the CNS (1). Devic's shares certain properties with multiple sclerosis; however, the relationship between them is controversial (1). Although an autoimmune etiology is speculated, the exact cause of Devic's is unknown (1), and the primary treatment involves corticosteroids. A review of the literature (MEDLINE/MeSH terms: "neuromyelitis optica," "Devic.mp," "Devic's.mp," "depression," "affect," "mental disorders") revealed no previous report of depression secondary to Devic's syndrome. To our knowledge, we report the first case of depression secondary to Devic's syndrome.

Ms. A, a 40-year-old woman of West Indian descent, had a history of depression. She was successfully treated with fluoxetine, 50 mg/day, at age 16 for mood symptoms related to body image. She experienced another episode of decreased mood and was treated successfully with citalopram, 20 mg/day. Later she experienced shoulder pain and leg paresthesia that progressed to debilitating generalized myalgia and optic neuritis. Then a diagnosis of Devic's syndrome was confirmed on the basis of magnetic resonance imaging findings.

After the onset of Devic's symptoms, Ms. A's mood deteriorated, and she fulfilled criteria for major depression, which was treated with an increase in citalopram to 40 mg/day. Subsequent to treatment with intravenous corticosteroids and a course of plasmapheresis, her neurological symptoms gradually improved, and her mood improved with the increased antidepressant dose and remission of the disease.

Ms. A then relapsed acutely, with increased pain in addition to nausea, vomiting, vertigo, weakness, and light flashes in one eye. She experienced increased depressive symptoms concomitant with her acute neurological symptoms. Her most recent symptoms were treated with intravenous corticosteroids and plasmapheresis, and her regular medications included 1200 mg t.i.d. of gabapentin, 200 mg/day of carbamazepine, 40 mg/day of citalopram, 0.5 mg b.i.d. of clonazepam, 1–2 mg every 4 hours as needed of lorazepam, and morphine (patient-controlled analgesia). Upon review, these medications were determined to be justifiable, with no dependence on pain medication. Results of a review of her systems was negative for substance use, somatoform disorder, mania, anxiety, psychosis, dementia, delirium, and a current eating disorder. Her past medical history included various cosmetic surgeries, a cholecystectomy, an appendectomy, a tonsillectomy, an ovarian wedge resection, a gastrectomy, a tubal ligation, and bilateral glaucoma.

The temporal sequence of depressive symptoms and history of improved mood with improved neurological conditions allowed the patient's current depression to meet partial criteria for a mood disorder secondary to a general medical condition. Although there may well have been some functional element to this depression, there was likely a pathophysiological underpinning. This may be similar to the pattern of depression in multiple sclerosis, in which the functional contribution to depression is as yet unclear (2).

References

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ANDREW BORDEN, B.SC.
CHETANA KULKARNI, M.D.
DEBBIE KRIEGER, M.D.
SHREE BHALERAO, M.D., F.R.C.P.C.
Toronto, Ont., Canada

Delirium From Valproic Acid With Lamotrigine

TO THE EDITOR: Lamotrigine has established effectiveness in treating partial complex seizures and bipolar disorder. Combinations of mood stabilizers are becoming more commonly used to treat refractory bipolar illness. The addition of valproic acid to a lamotrigine regimen interferes with or decreases metabolism by decreasing hepatic glucuronidation of lamotrigine and therefore increasing the elimination half-life (1, 2). This can lead to lamotrigine toxicity. We report a case of acute lamotrigine toxicity resulting in reversible delirium after relatively small doses of valproic acid had been added to a stable medication regimen that included lamotrigine.

Ms. A, a 51-year-old woman with multiple sclerosis, complex partial seizures, depression, and anxiety, was brought to an emergency room with confusion, disorientation, visual disturbances, and behavioral changes that had occurred all that day. Four days before, her psychiatrist had added 500 mg of extended-release valproic acid to her medication regimen, which included lamotrigine, 400 mg each morning and 200 mg at bedtime.

The results of a physical examination, laboratory measurements, and tests (including computerized tomography, an EEG, CSF studies, and magnetic resonance imaging) did not point to a specific medical etiology of Ms. A's confusion and behavior disturbance.

Her early hospital course was characterized by a fluctuating sensorium, orientation, and level of awareness. She was often disoriented to place and situation and reported visual hallucinations consisting of seeing her cat and people in the room. She developed paranoid delusions that her primary treating team was involved in a plot against her.

Given the history of a recent medication change, a drug-drug interaction was considered a likely cause of her delirium. A literature search revealed that valproic acid nearly triples the elimination half-life of lamotrigine (3). Both valproic acid and lamotrigine were discontinued, and measurement of her serum lamotrigine level was ordered. No other drug interactions were implicated. Over the course of the next 2 days, Ms. A showed steady improvement and complete recovery from delirium. A serum lamotrigine level in a blood sample drawn while she was experiencing delirium resulted in a measure of 22.9 μg/ml (therapeutic range=1–13 μg/ml).

This case demonstrates that lamotrigine toxicity can develop rapidly from relatively small doses of valproic acid. Although the patient's valproic acid level was within its thera-