Duloxetine May Improve Tourette's Syndrome: A Case Report

To the Editor: Patients affected by Tourette's syndrome (TS) suffer from sudden, involuntary, repetitive muscle movements (motor tics) and vocalizations (vocal tics). TS is also known as Gilles de la Tourette syndrome, named for the neurologist who first described the syndrome in 1885. The nature and complexity of the tics are usually variable over time, with natural waxing and waning in frequency and severity.[1] Many patients also develop associated behavioral problems, such as obsessions and compulsions, inattention, hyperactivity, and impulsivity.[2] Symptom onset typically occurs during childhood or early adolescence.[3] The etiopathogenesis of Gilles de la Tourette syndrome has not been ascertained, but it seems that the frontal-subcortical neural pathways are involved.[4] TS is frequently associated with attention-deficit/hyperactivity disorder, obsessive-compulsive disorder, and behavior problems that impair daily life.[2]

Duloxetine is a monoamine agonist, mainly used to treat depressive patients. For that reason, my colleagues and I investigated its efficacy for a patient suffering from TS.

Case report. I describe a 14-year-old girl 6 years after the onset of TS. Disease onset occurred in 2006 with involuntary, repetitive muscle movements and vocalizations. No triggering factors or accompanying symptoms could be identified. Family history was negative for sleep or other neurologic disorders. Comorbidities, especially attention-deficit/hyperactivity disorder, had been excluded by clinical interview and the Conners Rating Scales[5]; obsessive-compulsive spectrum disorders have been excluded by clinical interview. A routine electroencephalogram revealed no abnormalities and indicated the absence of epileptiform activities.

We initiated duloxetine at 40 mg/d and continued treatment for 4 consecutive weeks. Six days after the start of treatment, improvement of both the involuntary muscle movements and the vocalizations was noticed (on the Yale Global Tic Severity Scale,[6] the total motor score decreased from 17 to 10 and the total phonic score decreased from 18 to 12). The patient stated that she experienced a significant improvement of the symptoms.

This is the first report to my knowledge illustrating the clinical efficacy of duloxetine in TS. If confirmed in controlled trials, this finding suggests efficacy of duloxetine in this disorder.

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Potential conflicts of interest: None reported.
Funding/support: None reported.
Published online: June 10, 2010 (doi:10.4088/PCC.09l00889blu).
Prim Care Companion J Clin Psychiatry 2010;12(3):e1