■ Globus pallidus DBS for severe Tourette syndrome

Shahed et al. describe that tics, ADHD, OCD, and depression improved following bilateral globus pallidus interna DBS in a 16-year-old patient with severe Tourette syndrome.

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■ Deep brain stimulation for a teen with tics?

Commentary by Donald L. Gilbert, MD, MS

This report describes short-term changes after deep brain stimulation (DBS) in a 16-year-old boy with unusually severe Tourette syndrome (TS) symptoms.¹ The report illustrates important factors in considering DBS as an experimental treatment for TS.

First, unlike the adolescent described, for most individuals with TS, DBS would not be an appropriate therapy. In persons with TS the symptoms that interfere with daily activities arise from limbic or cognitive comorbidities, not from the movement disorder. TS is not a degenerative disorder, and tic symptoms often improve dramatically by adulthood.² Therefore, the possible benefits of invasive treatment would usually not outweigh the risks and with rare exceptions only adults would be DBS candidates.³

Second, for a small fraction of patients with TS, despite expert medical treatment, severe or socially inappropriate tics and compulsions interfere with social function and mood, cause

pain or injury, and thereby substantially reduce quality of life. In such cases, based on this and other recent reports,⁴⁻⁹ DBS appears worth considering, although the optimal electrode location is not known.

Third, neurosurgery teams contemplating DBS for TS should be highly experienced in the Food and Drug Administration–approved uses of DBS and should also be expert in assessment and treatment of TS. This expertise is critical not only for preoperative patient selection but also for postoperative monitoring for complications, for example in this case, the young man's repetitive touching of the internal pulse generator.

Finally, patient selection criteria, assessment protocols, and long-term outcome studies should be standardized.² A controlled clinical trial is essential. In the meantime, for the sake of our patients with TS, one can hope that most reports will be, like this one, presented thoughtfully and thoroughly via peer review rather than via media outlets.

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