

**Editors' Note:** In response to “Hand postures in primary and secondary generalized tonic-clonic seizures,” Dr. Lanska asks the authors whether hand postures were uniform across different convulsive events in individual patients and comments on the study methods, which could have distorted the results and conclusions. Dr. Siegel, an author of the study, explains that most patients experienced single events with minimal variation in those with epileptic events and more variability in patients with nonepileptic attacks. He also defends their study method. Commenting on “Long-term improvement in obsessions and compulsions with subthalamic stimulation,” Prof. Hariz inquires about the results beyond 3 months of the French deep brain stimulation for obsessive-compulsive disorder (OCD) study published in 2008. Authors Krack et al. respond that analysis of the 5-year follow-up of that study is under way and should be available soon. They add that a single study is not enough and additional studies will be needed to determine the role of surgical treatments in treatment-resistant OCD. The authors are starting a new multicenter study, comparing the effect of deep brain stimulation of the subthalamic nucleus vs optimized conventional management on quality of life in patients with treatment-resistant OCD.

—*Chafic Karam, MD, and Robert C. Griggs, MD*

#### LETTER RE: HAND POSTURES IN PRIMARY AND SECONDARY GENERALIZED TONIC-CLONIC SEIZURES

**Douglas J. Lanska, Tomah, WI:** In an interesting and clinically useful report, Drs. Siegel and Tatum<sup>1</sup> reported the characteristics and frequencies of different hand postures in primary and secondary generalized tonic-clonic seizures and nonepileptic attacks. Collectively, there were 98 convulsions studied from 62 patients.<sup>1</sup>

The authors did not report the within-patient variability in hand postures during convulsions for those with multiple recorded events. Were hand postures uniform across different convulsive events in individual patients or did they vary (recognizing that some stages of some recorded events were obscured from view)?

Further, the statistical analysis apparently considered convulsions to be independent events even though multiple events were tallied for some patients. Two events are independent when the outcome of the first does not influence the outcome of the second. Multiple

recorded events from individual patients are clearly not independent and cannot be considered the same as single events from separate patients. Consequently, the authors' analytical approach could easily distort their results and conclusions. Even simply restricting the analysis to the first recorded convulsion for each patient during which the hand postures were clearly visible would avoid this difficulty without resorting to more complicated statistics, albeit with the loss of some data.

1. Siegel J, Tatum WO. Hand postures in primary and secondary generalized tonic-clonic seizures. *Neurology* 2016; 87:1802–1805.

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#### AUTHOR RESPONSE: HAND POSTURES IN PRIMARY AND SECONDARY GENERALIZED TONIC-CLONIC SEIZURES

**Jason L. Siegel, Jacksonville, FL:** I thank Dr. Lanska for the comments and interest in our article.<sup>1</sup>

Overall, most patients experienced single events. For those with epileptic events, we saw only minor variations in the intensity, degree, and timing for hand posturing. More variability in hand postures was evident for patients with recurrent convulsive nonepileptic attacks, consistent with the expected overall lack of stereotypy.

We considered multiple events from a single patient as separate, given that serial seizures (clusters) were only rarely encountered. We believed that there was enough time between convulsions (no patient experienced convulsive status) to properly consider each event independently, as in the real-life condition. For technical and physiologic reasons, we did not believe that the first convulsive event was necessarily the most representative.

1. Siegel J, Tatum WO. Hand postures in primary and secondary generalized tonic-clonic seizures. *Neurology* 2016; 87:1802–1805.

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#### LETTER RE: LONG-TERM IMPROVEMENT IN OBSESSIONS AND COMPULSIONS WITH SUBTHALAMIC STIMULATION

**Marwan I. Hariz, London:** The clinical note by Polosan et al.<sup>1</sup> described a patient with severe obsessive-compulsive disorder (OCD) with sustained

improvement 10 years after deep brain stimulation (DBS) of the subthalamic nucleus (STN). The authors wrote, “Little is known about long-term outcome of STN-DBS in OCD,” and they concluded, “Future studies will have to confirm the long-term efficacy of STN-DBS in OCD illustrated in this single case report.”<sup>1</sup> These are remarkable statements coming from the authors of the pioneering French multicenter study on STN-DBS for OCD published in 2008.<sup>2</sup> In that study, 17 patients participated in a double-blind trial of STN-DBS with evaluation at 3 months. There has been no follow-up of that study, except a couple reports of a few selected patients from the Grenoble group.<sup>3,4</sup> If “little is known about long-term outcome of STN-DBS in OCD,” there is an easy way to remediate that lack of knowledge: evaluate and publish the >3-month results of the patients from the French multicenter study (which also included the patient described in the present report). Frankly, there is no need to wait for future studies that “will have to confirm the long-term efficacy of STN-DBS in OCD.”

1. Polosan M, Chabardes S, Bougerol T, et al. Long-term improvement in obsessions and compulsions with subthalamic stimulation. *Neurology* 2016;87:1843–1844.
2. Mallet L, Polosan M, Jaafari N, et al. Subthalamic nucleus stimulation in severe obsessive-compulsive disorder. *N Engl J Med* 2008;359:2121–2134.
3. Piallat B, Polosan M, Fraix V, et al. Subthalamic neuronal firing in obsessive-compulsive disorder and Parkinson disease. *Ann Neurol* 2011;69:793–802.
4. Chabardes S, Polosan M, Krack P, et al. Deep brain stimulation for obsessive-compulsive disorder: subthalamic nucleus target. *World Neurosurg* 2013;80:S31.e1–S31.e8.

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#### **AUTHOR RESPONSE: LONG-TERM IMPROVEMENT IN OBSESSIONS AND COMPULSIONS WITH SUBTHALAMIC STIMULATION**

**Paul Krack, Geneva; Mircea Polosan, Stephan Chabardès, Thierry Bougerol, Grenoble; Claire**

**Ardouin, Prébois, France; Pierre Pollak, Geneva; Alim Louis Benabid, Grenoble, France:** We thank Prof. Hariz for the interest in our illustrative single case report of a patient with treatment-resistant obsessive-compulsive disorder (OCD) with a good outcome of deep brain stimulation (DBS) of the subthalamic nucleus (STN) that remained stable over 10 years.<sup>1</sup> We fully agree with the importance of systematically publishing long-term data and not just cherry picking, thereby introducing publication bias. The open data from the 5-year follow-up of the STOC study are being analyzed by the lead author of the main study,<sup>2</sup> and should be available soon. However, a treatment has never proven its efficacy with a single study. Thus, we are starting a new multicenter study, comparing the effect of STN DBS vs optimized conventional management on quality of life in patients with treatment-resistant OCD.<sup>3</sup> With all due respect, we disagree with Prof. Hariz’s statement that there is no need to wait for further long-term studies. Many further studies are needed before a consensus is reached on whether there is a place for surgical treatments in treatment-resistant OCD in the world of psychiatry, which is still heavily influenced by the history of past abuses in psychosurgery.

1. Polosan M, Chabardes S, Bougerol T, et al. Long-term improvement in obsessions and compulsions with subthalamic stimulation. *Neurology* 2016;87:1843–1844.
2. Mallet L, Polosan M, Jaafari N, et al. Subthalamic nucleus stimulation in severe obsessive-compulsive disorder. *N Engl J Med* 2008;359:2121–2134.
3. European Study of Quality of Life in Resistant OCD Patients Treated By STN DBS (EQOLO). In: *ClinicalTrials.gov* [online]. Available at: [clinicaltrials.gov/ct2/show/NCT02844049](http://clinicaltrials.gov/ct2/show/NCT02844049). Accessed January 5, 2017.

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*Author disclosures are available upon request ([journal@neurology.org](mailto:journal@neurology.org)).*

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**Letter re: Long-term improvement in obsessions and compulsions with subthalamic stimulation**

Marwan I. Hariz

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