Deep Brain Stimulation and Psychiatry

Damiaan Denys

Department of Psychiatry, University of Amsterdam, Amsterdam, The Netherlands.

Published: 1 Oct, 2014

Abstract
The use of deep brain stimulation in psychiatric disorders has received great interest owing to the small risk of the operation, the reversible nature of the technique, and the possibility of optimizing treatment postoperatively. Currently deep brain stimulation in psychiatry is investigated for obsessive-compulsive disorder, Gilles de la Tourette’s syndrome and major depression. This presentation reviews the application of deep brain stimulation in psychiatric disorders. Preliminary results suggest that deep brain stimulation can effectuate a decrease of 40 to 60% in at least half the patients. Although various side effects occur, most of these are transitory and linked to specific stimulation parameters, which can be changed. Because only a few studies have been performed with a limited number of patients in accordance with varying research protocols, appliance of deep brain stimulation to psychiatric disorders is still at an experimental stage. The speed of the effect of deep brain stimulation causes fundamental assumptions on the pathophysiology of psychiatry to come into question.

Keywords: Psychiatric Disorder, Deep Brain Stimulation, Psychiatry, Pathophysiology.

*Corresponding Author: Damiaan Denys

Email: d.denys@amc.uva.nl