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Poster Presentation Review

Review of Deep Brain Stimulation Target Areas in Patients with Obsessive-Compulsive Disorder

Hassan Hosseini Ravandi[1], Leila Hosseini Ravandi[2], Milad Ahmadi[1, 3*]

[1] Shefa Neuroscience Research Center, Khatam Alanbia Hospital, Tehran, Iran.
[2] Faculty of Psychology, Urmia Branch, Payame Noor University, Urmia, Iran.
[3] Faculty of Veterinary Medicine, Karaj Branch, Islamic Azad University, Karaj, Iran.

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Abstract

Obsessive-compulsive disorder (OCD) is a psychiatric disorder manifested by thoughts and impulses that produce anxiety and result in patients performing repetitive rituals. Treatment generally consists of cognitive behavioral intervention and serotonin reuptake inhibitors. Up to 40% of patients will have functional impairment that significantly affects their quality of life. In the late 1990's, based on positive research results in anterior capsulotomies, deep brain stimulation (DBS) researchers first implanted electrodes in the anterior capsule of treatment-resistant OCD patients. The early results were promising. Three of the first four patients experienced benefit. A worldwide study found that out of 26 patients with treatment-resistant OCD, 61.5% responded positively to DBS. This response rate is similar to the other surgeries described above. However, comparisons must be tentative since the number of patients treated with DBS is still relatively small. In this review we discuss about the target area of DBS in OCD. Since then, larger trials have been done and the target area of the brain has moved slightly to an overlapping part of the brain called the ventral capsule/ventral striatum.

Keywords: Deep Brain Stimulation, Obsessive-Compulsive Disorder, Anxiety.

Corresponding Author: Milad Ahmadi

E-mail: *pmiladz@gmail.com*

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