

Abstract

Neurophysiology of the Nucleus Accumbens in Obsessive Compulsive Disorder patients

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Obsessive compulsive disorder(OCD) is a psychiatric condition characterized by persistent intrusive thoughts and ritualistic behaviour. Psychological interventions (cognitive behavioural therapy) and pharmacological treatments only partially improve symptoms (40-60%) in half of the patient population and 10% of patients show no response to treatment over the long term. Evidence of dysfunction in the reward system of OCD patients has prompted trials of deep brain stimulation (DBS) of the Nucleus Accumbens (NAcc). In our clinical trial, OCD patients are implanted with a stimulation and recording system that allows for chronic recordings (1+ year) during baseline periods or custom designed tasks.

Our study is focused on finding potential signatures of DBS-induced plasticity linked to improvement of OCD symptoms.