

## P02-206 - MULTIPLE DEEP BRAIN STIMULATION TARGETS FOR REFRACTORY OBSESSIVE COMPULSIVE DISORDERS

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Obsessive compulsive-disorder (OCD) is a group of highly debilitating condition characterized by intrusive troubling thoughts, repetitive, compulsive behaviors or mental rituals. A notable percentage of patients are refractory to pharmacological treatment and cognitive behaviour therapy. Increasing attention has been paid to the efficacy of Deep Brain Stimulation (DBS) therapies in alleviating pharmacoresistant psychiatric disorders including OCD.

**Objectives:** The aim of this prospective study was to determine the efficacy of DBS using several targets in a pharmacoresistant OCD population with heterogeneous symptoms.

**Methods:** Five patients (3 males) have been included in the study. Patients were classified according to their prominent features as follows: contamination/cleaning, symmetry/checking, exactness/counting and forbidden thoughts.

The entire surgical procedure was performed under general anaesthesia. Direct targeting based on stereotactic MRI without microelectrode recordings was done. A combination of two of the following targets was simultaneously implanted for all patients: subthalamic nucleus, accumbens nucleus and bed nucleus of stria terminalis, limbic globus pallidus internus.

Patients were assessed pre-and postoperatively using the Yale-Brown Obsessive Compulsive Scale.

**Results:** Mean age at surgery was of 42.6±12.68 years. Mean follow-up with DBS was of 21±14.88 months.

Mean preoperative Y-BOCS scores was 31.6±2.70 and of 11±7.97 (p=0,057, Wilcoxon signed Rank test).

**Conclusion:** Subthalamic nucleus and accumbens nucleus targets seem to be comparable in alleviating several subtypes of compulsions (checking, cleaning, counting) as well as obsessions. Further investigations are required to assess the role of limbic globus pallidus in improving pharmacoresistant OCD. Implanted system was well accepted without triggering new obsessions.