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REFRACTORY COMPULSIVE DISORDERS AND MULTI TARGET AREAS TREATED WITH DEEP BRAIN STIMULATION

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Background: Obsessive compulsive -disorder (OCD) is a group of highly debilitating condition characterized by intrusive troubling thoughts, repetitive, compulsive behaviours or mental rituals. According to the OMS, this is the tenth disease which produces a social incapacity. This behavior is associated with other diseases of the motor pathway as Parkinson, Tourrete, Lesh-Nyhan, PKAN, Huntington disease. A notable percentage of patients are refractory to pharmacological treatment and cognitive behaviour therapy. Increasing attention has been paid to the efficacy of DBS therapies in alleviating pharmacoresistant psychiatric disorders including OCD.

Purpose: This prospective study was to determine the efficacy of DBS using multiple targets in a pharmacoresistant compulsion behavior population with heterogeneous symptoms in a multidisciplinary team.

Population and methods: Five patients. 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 anesthesia. Direct targeting based on sterotactic MRI without microelectrode recordings was done. A combination of two of the following targets was simultaneously implanted for all 5 patients: subthalamic nucleus, accumbens nucleus and bed nucleus of stria terminalis, limbic globus pallidus internus.All the patients have been 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 postoperative ($p=0,057$, 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.