P01-84 - **DEEP BRAIN STIMULATION, ELECTROCONVULSIVE THERAPY, OR BOTH? A TWO CASE REPORT**

M.J. Portella[1], **D. Puigdemont**[1], R. Pérez-Egea[1], J. de Diego-Adeliño[1], J. Molet[2], A. Gironell[3], E. Alvarez[1], V. Pérez[1]

[1]Psychiatry, Hospital de la Santa Creu i Sant Pau. CIBERSAM, [2]Neurosurgery, [3]Neurology, Hospital de la Santa Creu i Sant Pau. Universitat Autònoma de Barcelona, Barcelona, Spain

Background: Electroconvulsive therapy (ECT) cannot always be effective for Treatment Resistant Depression. Deep brain stimulation (DBS), a procedure that involves the direct implantation of stimulation electrodes in localized brain regions with the aim of modulating local and connected abnormal activity, has recently been gaining momentum as an alternative treatment modality for the most severe TRD patients. However, there is minimal experience with ECT in patients who have undergone DBS procedures.

Methods: We present two cases of patients who remitted from TRD after SCG-DBS, and some months after they suffered a relapse that was treated with ECT.

Results: Before DBS intervention, ECT was not capable to sustain response more than two weeks beyond and was even bad tolerated by these patients. DBS was effective for both patients until a severe relapse occurred (after 4 and 14 months, respectively). Optimization of medication did not elicit response, given the seriousness of symptoms and their previous treatment resistance. Therefore, neurostimulator was turned off in order to administer ECT to both patients. After usual series of sessions set at corresponding parameters over 3 weeks, using bitemporal electrode placement, the episode remitted. Deep brain stimulator was turned on again, and they were in remission until the present moment.

Conclusions: The use of ECT proved to be effective without adverse effects to the patients or to the DBS hardware. The modulation of SCG activity and its downstream targets might also serve as a trigger for the therapeutic effect of formerly useful or even never-effective antidepressant strategies.

https://doi.org/10.1016/S0924-9338(10)70303-5 Published online by Cambridge University Press