

Conscious behaviors following bilateral pallido-thalamic low frequency stimulation in patients with continuing disorders of consciousness

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Deep brain stimulation (DBS) has been proposed to enable consciousness recovery. We studied clinical effects of bilateral pallido-thalamic low frequency stimulation intended to overdrive neuronal activity. Five patients were included. Primary outcome was the analysis of scores of the Coma Recovery Scale Revised (CRS-R; 0-23). Statistical analyses used random-effects models accounting between and within patient variability due to repeated measurements. We observed statistically significant improvement of CRS-R during DBS-ON versus baseline (P1, P3) and CO-ON versus baseline (P3). For the 5 patients auditory, visual, motor, oromotor-verbal, communication subscores of CRS-R were significantly improved.