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Introduction: Involuntary electroconvulsive therapy (ECT) can be a life-saving intervention for patients suffering from potentially lethal conditions who are unable to give informed consent. However, its use is not widespread, probably partly due to the scarce data on hard outcomes following involuntary ECT. In Denmark, involuntary ECT is only used when patients are at imminent/potential risk of dying if not receiving ECT.
Objectives: We aimed to assess the effectiveness of involuntary ECT by estimating the 1-year survival following its administration.
Methods: We conducted a register-based cohort study involving i) all patients receiving involuntary ECT in Denmark between 2008 and 2019, ii) age and sex-matched patients receiving voluntary ECT, and iii) age and sex-matched individuals from the general population. 1-year survival rates were compared via mortality rate ratios.
Results: We identified 618 patients receiving involuntary ECT, 547 patients receiving voluntary ECT, and 3,080 population-based controls. The survival rate in the year after involuntary ECT was 90%. For patients receiving involuntary ECT, the 1-year mortality rate ratios were 3.1 (95% confidence interval (CI)= 1.9-5.2) and 5.8 (95%CI = 4.0-8.2) compared to those receiving voluntarily ECT and to the population-based controls, respectively. Risk factors for early death among patients receiving involuntary ECT were male sex, being ≥70 years old and having organic mental disorder as the treatment indication.
Conclusions: Treatment with involuntary ECT is associated with a high survival rate, suggesting that the intervention is effective. However, patients receiving involuntary ECT constitute a high-risk population that should be monitored closely after this treatment.

Disclosure: No significant relationships.
Keywords: Electroconvulsive therapy; Informed Consent; Survival rate; Risk factors; Population Register

O234

Effect of add-on cathodal transcranial direct current stimulation (c-TDCS) over pre-supplementary motor area (pre-SMA) in patients with obsessive compulsive disorder: A randomized sham controlled study

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Introduction: Patients with OCD often show unsatisfactory response to first-line treatment, giving rise to a need for novel therapeutic approaches. Recent studies using tDCS for OCD treatment have shown promise.
Objectives: To assess efficacy and safety of add-on c-tDCS over pre-SMA compared to sham stimulation in patients with OCD.
Methods: In this double-blinded study, fourteen patients with OCD were randomized to receive 10 sessions of either active (Cathode over pre-SMA, anode over right deltoid, 2mA, 20 minutes per session, 2 sessions per day, 2 hours apart) or sham tDCS. YBOCS, HAM-D, HAM-A, CGI, Wisconsin Card Sorting Test (WCST), and Stroop Test were administered at baseline, post-tDCS, and 1 month post-tDCS.
Results: Group×time interaction effect for YBOCS scores with Repeated Measures ANOVA was not statistically significant, however, reduction in scores in active group was higher, with large effect size (YBOCS scores: Obsessions-η_p^2=.344, Compulsions-η_p^2= .384, Total-η_p^2=.392) (Fig.1 & 2). At 1 month, 42.9% patients in active group and none in sham group showed response. CGI-S score (p=0.016, η_p^2=.531) (Fig. 3) and four parameters of WCST (Perseverative responses:p=0.038, η_p^2=.448;Percent perseverative responses:p=0.026, η_p^2=.485;Percent perseverative errors:p=0.038, η_p^2=.447;Trials to complete first category:p=0.011, η_p^2=.563) significantly reduced in active group. No significant difference in change in depressive and anxiety symptoms between groups, or change in Stroop Test performance was noted. Adverse effects included transient headache and tingling sensation.

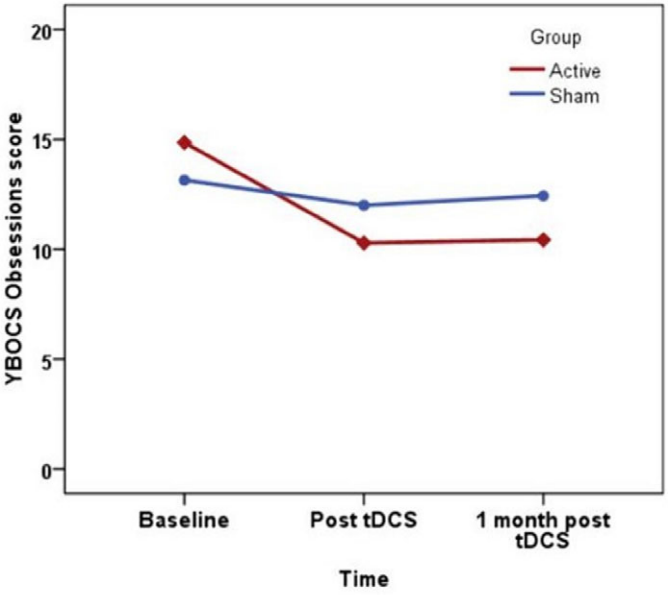

Fig. 1: Mean YBOCS obsessions score in active and sham group over time (N=14)

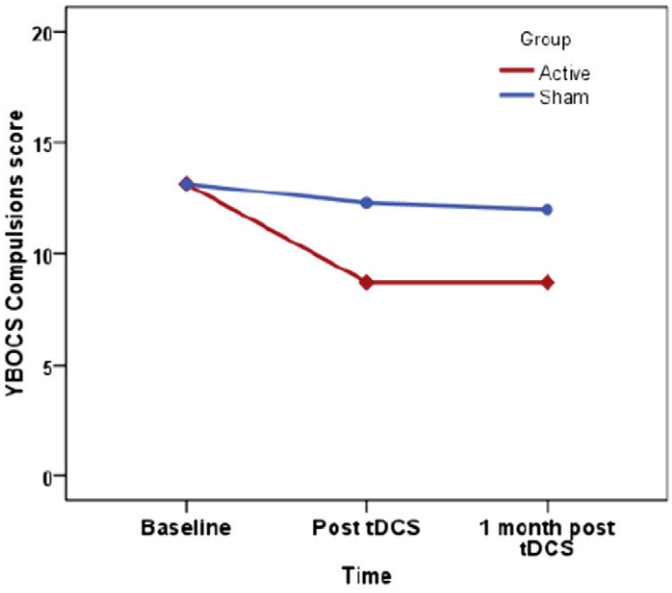

Fig. 2: Mean YBOCS compulsions score in active and sham group over time (N=14)

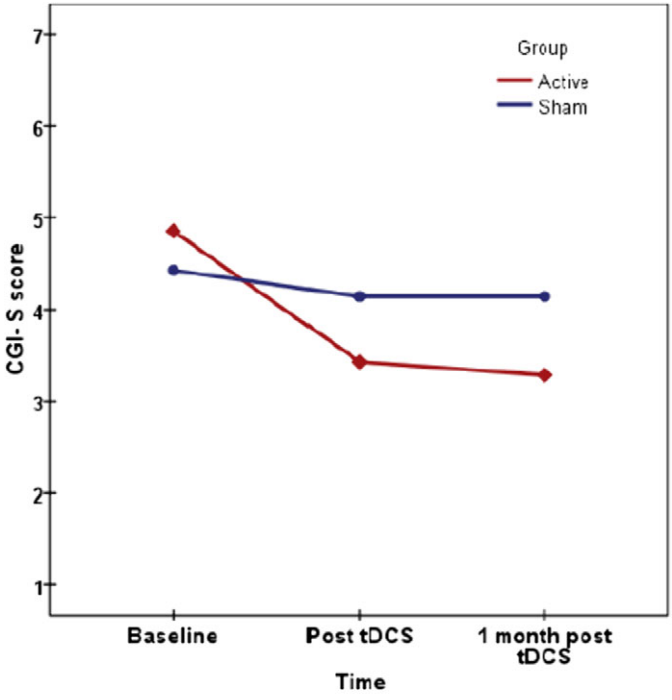

Fig. 3: Mean CGI-S score in active and sham group over time (N=14)

Conclusions: Cathodal tDCS over pre-SMA may be effective in reduction of obsessions, compulsions, illness severity, and enhancing cognitive flexibility in patients with OCD, with no major adverse effects. Larger studies are required to confirm these findings.

Disclosure: No significant relationships.
Keywords: ocd; tDCS; brain stimulation; Neuromodulation

O235

Changes in sleep with transcranial magnetic stimulation in adults with treatment resistant depression: Preliminary results from a naturalistic study

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Introduction: Sleep disturbance specifically insomnia, non-restorative sleep, and hypersomnia are common symptoms of major depressive disorder (MDD). As it alleviates major depressive disorder, transcranial magnetic stimulation (TMS) may improve associated sleep disturbances, and may also have inherent sedating or activating properties.
Objectives: To examine the impact of TMS on sleep disturbances in adults with treatment resistant depression in a clinical setting, we retrospectively reviewed de-identified data from naturalistically-treated MDD patients undergoing an initial acute course of TMS therapy at St.Louis Park MinCEP Clinic.
Methods: Adults with treatment-resistant depression received daily TMS treatments. 9-item Patient Health Questionnaire (PHQ-9) total scores were used to calculate % change at endpoint (relative to pretreatment baseline); response on both measures was defined as 50% reduction in scores, with remission defined as a final total score 4 on the PHQ-9. Insomnia was measured with a 3-item subscale of the Inventory of Depressive Symptomatology Self Report (IDS-SR). Hypersomnia was measured with a single IDS-SR item. Pairwise comparisons were performed using Student's T-test. Categorical variables were compared using Fisher's Exact test. Continuous outcome measures were tested with an analysis of covariance, using baseline PHQ-9 score as a fixed effect covariate.
Results: TMS appears to have differential modulatory effects on insomnia and hypersomnia in adults with treatment resistant depression.
Conclusions: These results may provide the basis for further investigation into therapeutic applications of TMS in addressing sleep disturbances in treatment-resistant depression. Measures that separate hypersomnia and insomnia should be implemented in future work addressing effects of TMS in treatment-resistant depression.

Disclosure: No significant relationships.
Keywords: repetitive transcranial magnetic stimulation; treatment-resistant depression; hypersomnia; Insomnia

O238

Critical analysis of the electroconvulsive therapy unit of centro hospitalar lisboa norte

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