responded to rTMS treatment. Additional data are also presented herein regarding patients with bipolar depression, as well as comorbid conditions including chronic pain, anxiety, OCD, and tinnitus.

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Deep Transcranial Magnetic Stimulation over the right prefrontal cortex improves ADHD symptoms: A combined TMS-EEG study

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Background: ADHD is a mental health disorder characterized by various symptoms including cognitive impairments, inattention, impulsivity and in some cases, hyperactivity. Despite its high prevalence, the only empirically validated treatment for ADHD is chronic administration of psychostimulants which is not tolerable by all patients. Deep TMS is a promising technique used for treatment of otherwise treatment-resistant neuropsychiatric patients. Notably, this tool can induce long-term alterations in neural cognitive networks and thus may provide means for cognitive and executive restoration. The current study is designed to investigate the therapeutic effect of dTMS on attention measures of ADHD patients and to map the resulting short and long − term changes within the brain.
Methods: In this double-blind randomized controlled study, patients diagnosed as having adult ADHD receive 15 sessions of high-frequency repetitive TMS using either deep, figure-8 or sham coils over the right prefrontal cortex. Assessments of the anticipated change include behavioral measures and questionnaires, as well as resting and evoked EEG responses including use of a stop signal task for comparison of activity between the treatment groups.
Results: Our preliminary results indicate that the deep TMS treatment (n=10) induced an improvement in attention measures (p=0.007, CAARS) and response inhibition (p=0.014, SSRT) relative to the sham (n=5) and figure-8 (n=5) groups.
Conclusion: Our initial outcomes suggest that stimulation of deep areas in the right PFC has therapeutic potential for ADHD symptoms through alteration of cognitive related brain circuits. The extent and potential mechanisms of our findings are currently investigated.

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Analysis of MDD Patients in Relation to TMS Outcome and Genotype

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Objectives: To determine the link between TMS outcome in patients treated for unipolar depression, and the patient's genetic profile of pharmacokinetic and pharmacodynamic genes.
Methods: This is an open-label outpatient study on patients with unipolar depression from three TMS clinics in Connecticut and New York. All patients with a Hamilton Depression score of 20 or more were treated with 20 or more consecutive TMS treatments. Response and remission rates were determined by weekly Hamilton scores. Baseline and final scores were compared. Genetic assay testing was conducted on all patients by using products from AssureRX or Genomind.
Results: A total of 164 patients were included in the study. Overall, response rates are at 76.8%, while remission rates are at 62.8%. Analysis is currently being conducted on the genomic variants affecting the metabolism and response to psychotropic medications in individual patients. We are also in the midst of studying how the possession of the short/long promoter polymorphism of the serotonin transporter gene will affect TMS outcomes.
Conclusion: Patients with depression and anxiety can potentially utilize genetic testing to assist them in making decisions for their approach towards various psychotropic medications and TMS therapy. With the current successful response rates of TMS outcomes, we conclude that TMS is an effective treatment for unipolar depression. Finally, the relationship between the patients' genetic profile and TMS outcomes will be presented at the meeting. Poster

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Retrospective Safety and Efficacy of the DeepTMS in a variety of pathologies including refractory Major Depression, Bipolar Depression, Parkinsońs Disease, negative symptoms of Schizophrenia and Stroke in a clinical setting; an update on the post-Marketing experience in Chile

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Background: Repetitive transcranial magnetic stimulation (rTMS) has been proposed as add-on for the treatment of various pathologies, including refractory Major Depression (MD), Bipolar Depression (BD), Parkinsońs Disease (PD), negative symptoms of Schizophrenia (NS) and Stroke (ST). However, the effectiveness of the conventional rTMS in clinical settings is currently being debated. The novel Deep TMS H-coils can effectively stimulate deeper and larger brain regions than conventional rTMS coils, including the complete thickness of motor and prefrontal cortices, suggesting greater potential clinical efficacy. Here, the retrospective safety and efficacy of the DeepTMS in a clinical setting is assessed.
Methods: Retrospective study of 200 patients treated in Chile using H1 and/or H2 coils between October 2012 and March 2014, including 95 patients with DM, 27 with BD, 50 with PD, 23 with NS and 5 with ST.
Results: Deep TMS was well tolerated without significant adverse effects. In MD response rate was 66% and remission rate was 53% with effects maintained after 150-days, while in BD remission rate was 59%. In PD, patients showed significant improvements in motor (8 points in motor MDSUPDRS), activities of daily living, postural, autonomic and depressive symptoms, as well as facilitation of concurrent L-dopa treatment. In negative symptoms of schizophrenia, patients showed a 41% decrease in SANS (21 points) and 29% PANS-N (8.7 points). In ST, significant improvements in response to physiotherapy were found in previously non-responsive patients treated with DeepTMS.
Conclusions: DeepTMS showed to be an effective, safe and well tolerated add-on treatment for the above disorders

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Efficacy of Deep TMS for the Treatment of Depression in a Real-world Clinical Practice Setting

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Introduction: The efficacy of deep TMS (dTMS) in depression has been shown in clinical trials. However, few dTMS studies have been conducted in naturalistic settings. Currently, we review response rates to dTMS treatment in a real-world clinical practice setting.
Methods: This study includes eight patients, ages 25 to 57 years (mean=42) receiving dTMS treatment using H-coil technology. Patients (75% male) met DSM-IV criteria for unipolar (n=7) or