

Abstract #55**MULTIFOCAL DTMS TO THE DMPFC-ACC, BILATERAL PFC AND INSULAR CORTICES FOR HIGHLY RESISTANT DEPRESSION: CASE REPORT**

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Abstract*Introduction*

Depressed patients who fail pharmacotherapy and non-invasive brain stimulation, such as TMS and ECT, have limited treatment options. Because depression affects multiple cortical and subcortical networks, multifocal deep TMS (dTMS) may have efficacy in such patients.

Methods

A 25 year-old-woman diagnosed with bipolar II depression, GAD, panic without agoraphobia, and narcolepsy with cataplexy. She failed every class of antidepressant and concomitant mood-stabilizers including Clozapine and Lithium. Over the past 4 years, she failed bilateral ECT as well as L-DLPFC, R-DLPFC, dmPFC-ACC dTMS stimulation, and combinations of these three (including increased pulses and stimulation intensity). Finally, she was administered daily high-frequency stimulation over the bilateral PFC and insular cortices (using the H4 coil), dmPFC-ACC (using the H7 coil), and low-frequency stimulation over the right PFC (using the H7 coil). After three months, treatment frequency was titrated down to twice weekly maintenance. CGI-S, BDI, BAI, PHQ-9, PSWQ were used to assess symptom severity.

Results

The patient's depression and panic attacks remitted with daily administration of the three-part protocol. On twice weekly maintenance, she experiences periodic panic attacks, but her depression remains in remission for nine months.

Conclusions

Patients with severe TRD may benefit from multifocal dTMS, but further research is needed to establish *a-priori* biomarkers for the type of treatment and optimal stimulation parameters.

Disclosure

Aron Tendler had a financial interest in Brainsway, the manufacturer of the H coils.

Abstract #56**DMPFC-ACC DTMS FOR REFRACTORY BODY DYSMORPHIC DISORDER: CASE REPORT**

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Abstract*Introduction*

Body dysmorphic disorder (BDD) is a variant of OCD where the patient's preoccupations and/or repetitive behaviors focus on appearance. These patients may benefit from dTMS with a coil (H7) that targets the dorso-medial PFC (dmPFC) and anterior cingulate cortex (ACC), that was shown to be effective and safe in OCD patients.

Methods

A 25-year-old-woman with lifelong performance anxiety and attention deficit disorder developed significant anxiety after her first job offer. Over five months, she was medicated with antidepressants and antipsychotics without benefit. She exhibited constant preoccupations with minor weight gain, magnified via muscle dysmorphia and poor insight. Her BDD and suicidal depression resulted in hospitalization. While inpatient, she underwent a course of H1 dTMS coil to the left PFC, which failed to reduce her obsessions or depression, but she was no longer actively suicidal. Because her suicidal ideation stopped with the H1, these treatments continued and the H7 was added. H7 dTMS was administered to the dmPFC-ACC at 100% resting MT of the foot. Immediately before initiating stimulation, the patient's specific obsessions were provoked. CGI-S, BDI and YBOCS assessed progress.

Results

After 32 daily treatments of dmPFC-ACC stimulation with the H7, the patient remitted (CGI-S 7 → 1, BDI 39 → 11, YBOCS 17 → 9) from her BDD and depression. She continued twice-weekly treatments for 12 weeks, when Fluoxetine was added for prophylaxis. She remains gainfully employed in remission for close to two years without further dTMS.

Conclusions

Patients with BDD who do not respond to pharmacotherapy may benefit from dTMS to the dmPFC-ACC.

Disclosure

Aron Tendler has a financial interest in Brainsway, the manufacturer of the H coils.

Abstract #57**H1-COIL INTERMITTENT THETA BURST STIMULATION FOR A PATIENT WITH A HIGH MOTOR THRESHOLD: CASE REPORT**

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Abstract*Introduction*

Effective H1 coil stimulation for depression requires a dosage of 120% of the resting MT. However, some patients have high MTs and difficulty tolerating the high intensity that follows. Theta burst stimulation (TBS), compared to high-frequency stimulation, may accomplish the same effects with shorter stimulation durations at a lower intensity. Early evidence from figure-8-rTMS suggests that intermittent TBS (iTBS) at 80% of MT is not inferior to 10HZ at 120% of MT for the treatment of depression.

Methods

A 60-year-old woman with recurrent severe treatment resistant depression as well as a relapse of her OCD which made her unable to shower or brush her teeth for two and half months was referred for H1-coil dTMS. Her MT was 79, and she was unable to tolerate the 120% MT intensity. After 9 attempts with the 18HZ protocol, she was switched to an iTBS protocol at 80% of MT. dTMS pulses were administered at 50HZ in 3 pulse bursts, 10 bursts over two seconds (5HZ), followed by a five second interval, for 60 cycles (7second cycle), totaling 1800 pulses. After a 15-minute wait, the protocol was repeated for an accelerated effect.