

Poster

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Poster 34

[P-34-06] rTMS in Anorexia Nervosa: Novel adjunct in a complex case

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Keywords : rTMS, Anorexia Nervosa, Eating Disorder in Adolescents, Neuromodulation, Treatment for Anorexia

Background

Anorexia Nervosa (AN) in adolescents is often chronic and associated with significant psychosocial burden. CBT and family-based therapy are time-intensive and face challenges with accessibility and adherence. Pharmacological options offer limited benefits and are often poorly tolerated. Given the limitations, novel interventions are being explored. Repetitive Transcranial Magnetic Stimulation (rTMS), a non-invasive technique with minimal long-term side effects, has shown promise in OCD. Due to shared features such as ruminations and compulsive behaviors, rTMS may be a valuable adjunct in improving outcomes and reducing treatment duration in AN.

Case Presentation

A 15-year-old girl was transferred to Acute Inpatient Psychiatry Centre following a suicide attempt by falling from a height, resulting in multiple fractures and head injury with subarachnoid hemorrhage (SAH). She exhibited active suicidal ideation, body image dissatisfaction, and severely restricted calorie intake due to fear of gaining weight. Ward observations also noted forgetfulness, decreased interaction and Obsessive-compulsive traits (e.g., compulsive food photography and food logging). Due to limited response to multidisciplinary interventions, rTMS was initiated.

Methodology

Sociodemographic and Clinical details (detailed history and MSE) 2. Relevant psychological assessments (DSM 5 cross cutting) were done pre-rTMS, at 15th session, Post rTMS High Frequency to Left DLPFC and Low Frequency to Right DLPFC was given.

Results

Significant clinical improvement after 30 sessions of rTMS, including improvement of eating behavior, interactions, compulsive symptoms and successful reintegration into academic life.

Discussion

AN and OCD share clinical and neurobiological features, prompting interest in rTMS as a treatment for AN. In OCD, **low-frequency** rTMS to **Right DLPFC** reduces ruminations, while **high-frequency** stimulation of the **left DLPFC** enhances executive function.

In this case, rTMS showed significant response, supporting its potential as an early adjunctive
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therapy in AN, especially with OCD-like symptoms. More research is needed to confirm its broader use.