

## AUGMENTATIVE REPETITIVE TRANSCRANIAL MAGNETIC STIMULATION (RTMS) IN THE ACUTE TREATMENT OF DRUG-RESISTANT DEPRESSION

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**Introduction:** rTMS is a non invasive technique, used for the stimulation of the Dorsolateral Prefrontal Cortex (DLPFC) by means of coil-generated magnetic fields [1,2]. The present study was aimed to assess efficacy and tolerability of augmentative low and high frequency rTMS in TRD patients, with current moderate-severe major depressive episode.

**Methods:** 24 patients with a diagnosis of drug-resistant Major Depressive Episode (Unipolar or Bipolar Depression) were treated with 4 weeks of rTMS. Subjects were randomly assigned to one of the following treatments: right DLPFC, 1 Hz, 110% of motor threshold (MT), 420 stimuli/day; right DLPFC, 1 Hz, 110% MT, 900 stimuli/day; left DLPFC, 10 Hz, 80% MT, 750 stimuli/day, according to safety guidelines [3]. Analyses were performed using t-test and ANOVA.

**Results:** 3 subjects dropped out at the 1<sup>st</sup> or 2<sup>nd</sup> weeks of stimulation. 21 patients completed the treatment, showing a statistically significant score reduction at HAM-D, MADRS, HAM-A e CGI-s ( $t=9.05$ ,  $p < 0.005$ ;  $t=7.93$ ,  $p < 0.005$ ;  $t=6.81$ ,  $p < 0.005$ ;  $t=4.37$ ,  $p < 0.005$ ). Response (reduction of HAM-D score of 50%) was achieved by 2 patients, one of whom considered remitter (HAM-D $\leq$ 8). Partial response (reduction of HAM-D score between 25-50%) was obtained by 12 patients. No significant difference was observed in terms of efficacy between high vs low frequency. With respect to tolerability, only mild and transient side-effects were reported (discomfort, headache, insomnia). One patient withdrew because of hypomanic switch.

**Conclusions:** Both augmentative low and high-frequency rTMS appeared to be equally effective and well tolerated in the treatment of TRD.