

Recent advances in functional neuroimaging techniques

The article "A review of new minimally invasive brain stimulation techniques in psychiatry", published in this periodical,¹ provides an excellent overview of transcranial magnetic stimulation technique (TMS), among other new methods. The TMS technique has become an important non-pharmacological tool for the treatment of psychiatric disorders.

The authors emphasized that there is still a need to better define ideal parameters to be used to optimize the therapeutic effects of the technique, such as the percentage of motor threshold and frequency of stimulation, duration of each application, interval between sessions, and etc.²

I would like to comment on an additional aspect that requires further evaluation: the number of days of TMS treatment, which was not discussed in Jho et al's article.

In almost all TMS trials reported to date, treatment duration

ranged from one to two weeks^{3,4} (corresponding to approximately 5 to 10 applications). An interesting study conducted by Pridmore et al in Australia⁵ reported a blind comparison between electroconvulsive therapy and TMS for major depressed patients without limiting the number of days for each treatment. A group of 32 patients were randomly divided to receive either high frequency TMS or unilateral ECT. In both subgroups, the applications were continued until clinical improvement occurred. Patients who received TMS needed a mean of 13.1 + 3.1 sessions to achieve clinical remission. Based on these data, one can raise the hypothesis that, similarly to ECT, TMS requires extended periods of treatment to be clinically effective, possibly 3 weeks on average.

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References

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