OBJECTIVES: Repetitive transcranial magnetic stimulation (rTMS) has been demonstrated to be effective in depressive disorders in many studies. But this promising method has not been specifically studied in bipolar depression in which antidepressant medications can precipitate a manic episode and lead to rapid-cycling disorder.

METHODS: Eight patients having drug-resistant severe bipolar depression were applied rTMS with antidepressant drugs in an open and uncontrolled study. The Hamilton Depression Rating Scale was given to the patients both before the treatment and after ten sessions of rTMS. Fifty percent decrease in the score was evaluated as ‘response’. The patients also used antipsychotic and/or mood stabilizing drugs.

RESULTS: Five patients responded to the rTMS therapy recovering from depression. Three patients shifted to manic episodes.

CONCLUSION: rTMS may be an effective method in the treatment of bipolar depression. However, the fact that three patients out of eight switched to mania raises questions about its safety even though all of these patients were also taking antidepressant medications.

INTRODUCTION

Repetitive transcranial magnetic stimulation (rTMS) is a promising research and clinical tool in a number of neurological and psychiatric disorders. Its efficacy in depression has been demonstrated in many studies (1,2,3,4,5,6,7,8). Fewer studies have investigated rTMS in bipolar disorder. Bipolar depression is an area of clinical challenge. Antidepressant drugs may cause a switch to mania and rapid-cycling disorder. With respect to the high prevalence of bipolar disorder and the extent of morbidity and mortality it causes, it is clear that novel therapeutic approaches may be very important. We have investigated the efficacy and safety of rTMS in treatment-resistant bipolar depression.

METHODS

Eight patients having drug-resistant severe bipolar depression were applied rTMS with antidepressant drugs in an open and uncontrolled prospective study. Four were females and four were males. The average age of the patients was 31.1. The diagnosis of depression was made according to the DSM-IV. Drug-resistant depression was described as the failure to respond adequately both to the addition of or increase in the dose of lithium and to two successive courses of monotherapy with pharmacologically different antidepressants given in adequate doses for sufficient time. The seventeen-item Hamilton Depression Rating Scale (HDRS) were given to the patients both before the treatment and after ten sessions of rTMS. Severe depression was described as having at least 22 points on the HDRS. A fifty percent decrease in the scale was evaluated as ‘response’. The patients also used antipsychotic and/or mood stabilizing drugs.

rTMS was applied over the left prefrontal cortex (Magstim, rapid, supratherap high frequency magnetic stimulator). Its intensity was the motor threshold that caused muscle movement when it was applied over the motor cortex. Other values of rTMS were 10 seconds, 25 Hz, 210 pulses and 70 trains. All patients gave written informed consent.

RESULTS

The average of HDRS scores of the patients was 28.2. All responded to the rTMS therapy, that is, showed at least 50 percent decrease in HDRS scores. However, three patients shifted to manic episodes.

In eight patients having medication-resistant severe bipolar depression, rTMS resulted in response in therapy in 100 percent of patients. However, mania as an adverse effect occurred in 37.5 of patients. Therefore, it seems that 62.5 of patients benefited from rTMS.

REFERENCES