## Extended Course of Repetitive Trans-Cranial Magnetic Stimulation Therapy and a Complicated Case of Obsessive-Compulsive Disorder

Sir,

In addition to selective serotonin reuptake inhibitors (SSRIs) and cognitive-behavioral therapy (CBT), alternative monotherapies, augmentation strategies and biological therapies have shown results in individual cases of treatment resistant obsessive compulsive disorder (OCD), but no conclusive evidence has been found in placebo-controlled trials.[1] Severe neurological symptoms have been reported after sudden discontinuation of SSRI.[2] Currently there are insufficient data and inconsistent results about use of repetitive transcranial magnetic stimulation (rTMS) in OCD.[3] Transcranial magnetic stimulation (TMS) is a noninvasive technique that delivers magnetic pulses to the cortex by means of a stimulating coil applied directly to the head. One-single pulse produces an intense magnetic field that causes depolarization of lower neurons. Its use has been widely studied with depression and lately been approved for use. Several studies have been published that it has promising role in treatment of treatment resistant OCD.[4] We report a therapeutic effect of extended rTMS to a case of treatment resistant OCD who responded poorly to various combinations of pharmacological and cognitive behavioral therapies and in the course, developed persistent and intractable symptoms of sudden SSRI discontinuation.

Ms. L.D., a 52-year-old woman, was on regular treatment for 25 years for her incapacitating egodystonic obsessions of causing harm to children in the family by throwing them. There were intermittent depressive symptoms but always secondary to her obsessive thoughts. She never met any other diagnoses according to DSM-IV-TR.

L.D. received subsequent adequate trials of clomipramine, imipramine, trazodone, and citalopram augmented with CBT. None of therapy proved effective for her. Her last treatment regimen consisted of citalopram 80 mg/day, clomipramine 150 mg/day, buspirone 30 mg/day, lithium 300 mg/day and clonazepam 2 mg/day, which was augmented by subsequent adequate trial of CBT and then Electroconvulsive therapy without any success.

Patient changed her psychiatrist without disclosing her past treatment history. Due to sudden discontinuation of her treatment, she developed withdrawal symptoms of gait disturbance, tremors, rigidity, and a generalized tonic-clonic seizure. Radio-imaging and neurologist opinion suggested no neurological abnormalities.

Upon discharge from the medical facility, symptom of gait disturbance persisted. The patient worsened in terms of her obsessive symtoms (Yale-Brown obsessive compulsive scale score (Y-BOCS) = 32). Sertraline 200 mg/day was given as monotherapy for 6 weeks with no change in score and then rTMS (right dorso-lateral prefrontal cortex at intensity 100% of motor threshold) therapy added as an augmenting agent after patient consented for the same. She was given first 30 sessions over 6 weeks with Monday to Friday schedule and reported significant improvement in her obsessions (Y-BOCS=15) as well as gait problem. She was given next 30 treatment sessions once per week rTMS and on completing total 60 sessions, Y-BOCS score was 5 and patient had no problem with her gait. She was able to move on plain surface as well as on stairs without any assistance. The improvement has maintained for more than 3 months after stopping rTMS and continuing sertraline 200 mg/day.

Our case suggests that an extended rTMS therapy may be effective in the treatment resistant case of OCD where all other measures failed. rTMS probably had effect on persistent symptoms of SSRI discontinuation. SSRI discontinuation syndrome has a predictable onset, duration, and offset of action containing psychological and bodily symptoms not previously complained of by the patients and which can be suppressed by the reinstitution of discontinued medication. This patient had intractable bodily symptoms which persisted even after reinstitution of SSRI but improved with rTMS treatment. This may be an incidental finding but correlating studies are justified.

## Ram Jeevan Bishnoi, Venu Gopal Jhanwar

Department of Psychiatry, Deva Institute of Healthcare & Research Pvt. Ltd., Varanasi, Uttar Pradesh, India

Address for correspondence: Dr. Ram Jeevan Bishnoi, Department of Psychiatry, Deva Institute of Healthcare & Research Pvt. Ltd. B27/70 MN, Durgakund, Varanasi - 221 005, Uttar Pradesh, India. E-mail.: Bishnoiramj@gmail.com

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