

# Increased corticomotor excitability ID'd in restless legs

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(HealthDay)—For patients with restless leg syndrome (RLS), the

primary motor cortex (M1) exhibits hyperexcitability, which is associated with disease severity, according to a study published recently in *Sleep Medicine*.

Rachel Marie E. Salas, M.D., from Johns Hopkins Medicine in Baltimore, and colleagues used transcranial magnetic stimulation (TMS) to examine corticomotor excitability in M1 of participants with moderate-to-severe RLS in relation to the clinical and sleep aspects of the disease. After two nights of polysomnography (PSG), 35 participants affected by primary RLS (off medications) and 31 age-matched controls underwent TMS.

The researchers identified decreased corticomotor excitability in M1<sub>hand</sub> and increased excitability in M1<sub>leg</sub>, which was more pronounced in patients with more severe RLS. Decreased long-interval intracortical inhibition was seen in participants with RLS with a history of dopamine-agonist-induced symptom augmentation compared with non-augmented participants with RLS for M1<sub>leg</sub>. There was no correlation for any of the TMS measures with PSG parameters.

"This study shows hyperexcitability in M1<sub>leg</sub>, and this appears related to RLS disease severity and decreased excitability in M1<sub>hand</sub>," the authors write. "The results provide new insight into the complex neurobiology of RLS, particularly in more advanced stages of the disease."

**More information:** [Abstract/Full Text \(subscription or payment may be required\)](#)

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