

# Beyond the Urge to Move: Exploring Impulsivity, Aggression and Impulse Control Disorders in Restless Legs Syndrome

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**Introduction.** This study aims to examine impulsivity and prevalence of Impulse Control Disorders (ICDs) in patients with Restless Legs Syndrome (RLS) and to explore differences in impulsivity and aggressivity subtypes independently of ICD presence.

**Methods.** A total of 27 RLS patients and 21 controls were enrolled in the study. The frequency and severity of ICDs were assessed using the modified Minnesota Impulsive Disorders Interview (mMIDI), while disease severity was measured with the International Restless Legs Syndrome Study Group Rating Scale (IRLSRS). Impulsivity was evaluated using the Barratt Impulsiveness Scale-11 (BIS-11) and the Go/NoGo task, which assess attentional and motor impulsivity. Lastly, aggressivity was evaluated using the Aggression Questionnaire (AQ).

**Results.** The results revealed a higher prevalence of ICDs among RLS patients. Notably, compulsive eating disorder was observed in 48,1% of RLS patients, compared to 4,7% in the control group ( $p=0.001$ ). 26 out of 27 patients with ICDs were receiving dopaminergic treatment, suggesting a potential link between DA therapy and ICD development.

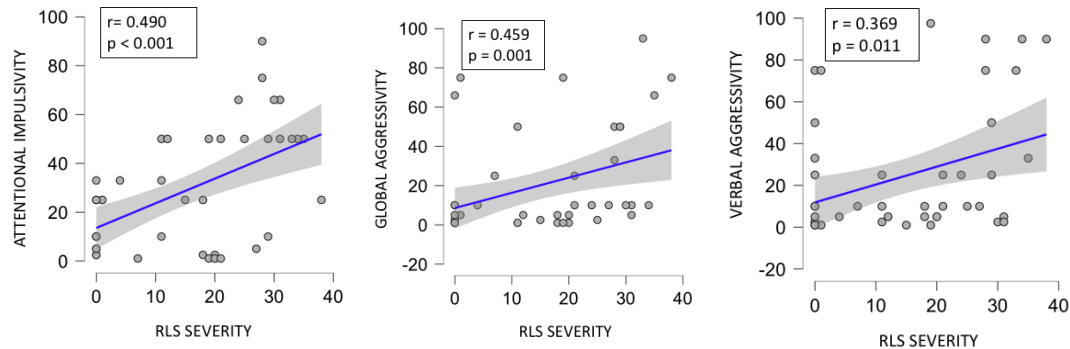


Figure 1. Association between symptoms' severity, attentional impulsivity and global/verbal aggressivity

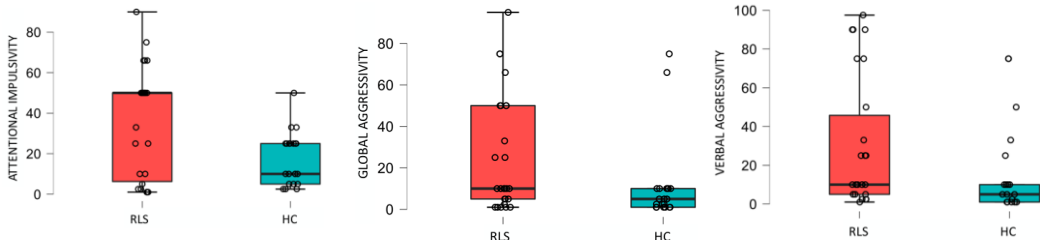


Figure 2. Comparisons between RLS patients and Healthy Controls for Attentional Impulsivity and Global/Verbal Aggressivity. \* $p<0.05$ .

Furthermore, RLS patients exhibited close to significance difference in attentional impulsivity than controls ( $p=0.055$ ), which correlated with symptom severity ( $r=0.490$ ,  $p < 0.001$ ). However, no significant differences were found in motor impulsivity. Remarkably, both global aggressiveness (AQ<sub>t</sub>) ( $p=0,034$ ) and its verbal subtypes (AV) ( $p=0,022$ ) are significantly increased in RLS patients. Furthermore, these variables correlate positively and significantly with severity of the disease (AQ<sub>t</sub>:  $p=0,001$   $r=0,459$ ) (AV:  $p=0,011$   $r=0,369$ ).

**Conclusion.** RLS patients exhibited heightened attentional impulsivity and aggressivity, and both correlated with symptom severity, while motor impulsivity remained unaffected. Additionally, compulsive eating disorder emerged as a significant concern among RLS patients. Notably, all RLS patients with ICDs were undergoing dopaminergic treatment, highlighting the need for further research to explore this association and its potential connection to attentional impulsivity.

## References

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