

Serum Ferritin Levels and Correlates in 300 Prospective Restless Legs Syndrome

Patients

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Objectives: The aim of this study was to prospectively examine all restless legs syndrome (RLS) patients consulting a sleep disorders clinic, and to assess RLS severity and augmentation, and their associations with ferritin levels.

Methods: Patients were stratified into three groups: RLS patients with augmentation, without augmentation, and those with non-clinically significant RLS whose diagnosis was an incidental finding, i.e., they had been diagnosed with RLS following consultation for another complaint. Work-up included RLS severity scales and blood biochemical variables including indices of iron metabolism.

Results: In an 18-month period, 302 patients with RLS (183 women, 119 men; mean age, 59.1 ± 13.7 years) were recruited. RLS was considered idiopathic in 291 patients (96.4%). Most patients (240, 79.5%) were RLS sufferers, whereas the remaining 62 (20.5%) had non-clinically significant RLS that had been diagnosed incidentally. Nineteen out of 162 patients treated with dopaminergic agents (11.7%) had current augmentation. Almost one-third of all patients (31.1%) had serum ferritin levels $< 50 \mu\text{g/L}$. Patients with non-clinically significant RLS had higher serum ferritin levels than RLS patients without current augmentation. The lowest serum ferritin levels were present in RLS patients with current augmentation (non-clinically significant RLS as an incidental finding vs. RLS patients without current augmentation vs. RLS patients with current augmentation, $132.8 \pm 98.0 \mu\text{g/l}$ vs. $100.6 \pm 84.5 \mu\text{g/l}$ vs. $55.8 \pm 43.6 \mu\text{g/l}$; $p = 0.002$).

Conclusions: The severity spectrum of RLS in this clinical cohort ranged from non-clinically significant to augmented RLS. There was an inverse correlation between RLS severity and ferritin levels. Patients with current augmentation had the lowest serum ferritin levels. Our data provide further evidence of the implication of low iron stores in being a potential aggravator of idiopathic RLS. Moreover, low serum ferritin might represent a potential biomarker of RLS augmentation under dopaminergic therapy.