

Seasonality of restless legs syndrome: symptom variability in the winter and summer.

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Introduction: Restless legs syndrome (RLS) is a common sensorimotor neurological disorder, with symptoms that might cause sleep fragmentation leading to excessive daytime sleepiness. A seasonality of RLS symptoms has been suggested, however, to date no study has focused on this aspect. In order to detect a possible seasonality of RLS manifestations, we evaluated RLS symptom severity and excessive daytime sleepiness in winter and summer in RLS patients.

Methods: RLS patients who performed two follow-up visits in the summer and winter were included in this retrospective bicentric analysis. RLS severity, measured with the International RLS Study Group rating scale (IRLS), and daytime sleepiness, measured with the Epworth Sleepiness Scale (ESS), were recorded at both periods in the Innsbruck and Rome Sleep Medicine Centers.

Results: Sixty-four RLS patients were included. In the overall sample, IRLS scores in the summer were higher than in the winter ($p=0.008$). After sex stratification, this held true only in men ($p=0.008$). When stratifying for centers, the seasonal variation in RLS severity was present exclusively in Rome ($p<0.001$). Twenty RLS patients completed ESS in both periods and scores in the summer were higher than in winter ($p<0.001$).

Conclusions: This retrospective observational study showed an increase of RLS severity during the summer compared to the winter, supporting the hypothesis that RLS symptoms are more troublesome when temperatures are higher. Changes in microvascular regulation, sweating, and serum iron level modifications may support this difference in RLS symptoms over the year. The documented seasonal variation in RLS severity with worsening in the warmer months needs to be investigated further in prospective studies.