

Restless legs syndrome and periodic limb movements during sleep in the Multi-Ethnic Study of Atherosclerosis

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Abstract

Study Objectives

To investigate the prevalence of concurrent periodic limb movements during sleep (PLMS) and restless leg syndrome (RLS), as well as the prevalence of PLMS and RLS separately. Additionally, we document these prevalences by age, race/ethnicity, sex, and obesity status.

Methods

Cross-sectional data from 2041 Multi-Ethnic Study of Atherosclerosis (MESA) Sleep ancillary study participants were used. PLMS (>15 periodic limb movements per hour of sleep) was measured by polysomnography. RLS symptoms were assessed using the 2009 International Restless Legs Syndrome Study Group clinical criteria.

Results

The prevalence of RLS with PLMS was 6.7%, RLS alone 16.1%, and PLMS alone 21.2%. RLS with PLMS was prevalent in 7.0% of whites, 4.9% of blacks, 10.1% of Hispanics, and 3.3% of Chinese-Americans. In adjusted models, odds of RLS with PLMS was higher for those older than 67 years versus those younger (odds ratio [OR] [95% confidence interval [CI]] = 1.62 [1.09–2.40]). Relative to white participants, the prevalence of RLS with PLMS tended to be lower among blacks (0.56 [0.32–0.96]). The prevalence of concurrent RLS and PLMS did not statistically differ by sex or obesity status. RLS alone was more common in women

Conclusions

Approximately 7% of our sample had RLS with PLMS (“electro-clinical RLS”). This condition was more common among older individuals, did not vary by sex, and was less common among blacks. The findings provide some of the first information about the prevalence of concurrent RLS and PLMS in a community-based sample and show distinct sex and race associations for RLS versus electro-clinical RLS.

[restless leg syndrome](#), [period leg movements](#), [racial differences](#), [Multi-Ethnic Study of Atherosclerosis](#)

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