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Association between Restless Legs Syndrome Symptoms and Self-Reported Hypertension: a Nationwide Questionnaire Study in Korea

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ABSTRACT

Background: The association between restless legs syndrome (RLS) and hypertension remains controversial. We investigated the relationship between RLS and hypertension in a nationwide sample of the Korean adult population.

Methods: This was a cross-sectional questionnaire-based study including 2,740 adults aged 19 years or more. Subjects who met the four essential International RLS Study Group criteria and reported symptoms occurring at least once a week were defined as the RLS group. The presence of hypertension was defined as a self-reported history of physician-diagnosed hypertension. We conducted multiple logistic regression analysis to determine the independent association between RLS symptoms and self-reported hypertension after adjusting for potential confounding factors.

Results: Among the 2,740 subjects, 68 (2.5%; 95% confidence interval [CI], 1.9%–3.1%) were found to have RLS with a symptom frequency of at least once a week. The prevalence of self-reported hypertension was 30.9% (95% CI, 20.5%–42.0%) in the RLS group, which was significantly higher than that in controls (12.4%; 95% CI, 11.2%–13.6%; $P < 0.001$). Multiple logistic regression analysis showed that the adjusted odds ratio for self-reported hypertension in the RLS group was 2.10 (95% CI, 1.12–3.93) compared to controls. In addition to RLS symptoms, old age, being overweight, low education level, diabetes mellitus, and short sleep duration were significantly associated with self-reported hypertension.

Conclusion: RLS symptoms occurring at least once a week is independently associated with a higher prevalence of self-reported hypertension in the adult Korean population. Further research will confirm the clinical implication of the present results and the causal relationship between RLS and hypertension.

Keywords: Restless Legs Syndrome; Willis-Ekbom Disease; Hypertension; Prevalence

