

Increased risk for new-onset hypertension in midlife male snorers: The 14-year follow-up study.

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Abstract

While the association between sleep-related breathing disorders such as snoring and hypertension has been well established, it still remains unclear whether the association differs by age and gender. Therefore, in this 14-year follow-up study, we examined the independent association between self-reported snoring and the incidence of hypertension by gender and age groups in a large cohort of Korean adults. A total of 4,954 adults, aged 40-69 years, free of hypertension at baseline were enrolled. Participants were divided into three groups based on a self-reported snoring frequency: never; occasional (snoring <4 nights per week); and habitual snorer (snoring ≥ 4 nights). At baseline and biennial follow-up visits, blood pressure was measured by trained examiners. Incident hypertension was defined as the first occurrence at any follow-up examination where the participants had blood pressure $\geq 140/90$ mmHg or were being treated with antihypertensive medication. After adjusting for known cardiovascular risk factors, only in men aged ≤ 45 years was habitual snoring significantly associated with a 1.5 times higher risk for incident hypertension than never snoring. In this age group, habitual snoring was significantly associated with increased risk for the development of hypertension, regardless of the presence of excessive daytime sleepiness. In women, snoring was not significantly associated with hypertension incidence in any age group. The present study suggests that young male snorers may be at high risk for the future development of hypertension, which has important clinical implications for early detection and treatment of snoring to reduce the burden of cardiovascular disease.

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KEYWORDS:

cohort study; habitual snoring; hypertension; incidence; sleep-disordered breathing