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The association between snoring and hypertension⸺a systemic review and meta-analysis

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Snoring is one of the common symptoms of sleep in men and often caused by increased upper airway resistance. Previous studies have shown that person with snoring often suffer from hypertension. The purpose of this study is to summarize the evidence for the association between snoring and essential hypertension. Methods We searched Cochrane Library, PubMed, Scopus, Web of Science and Embase for eligible studies published up to 12 November 2020 to evaluate the association between snoring and essential hypertension. Studies were selected according to the predefined screening criteria, and their qualities were assessed by Newcastle-Ottawa Quality Evaluation Scale. Linear and non-linear dose-response models were used to assess the relationship between snoring and essential hypertension. Stata 16.0 was used for the meta-analysis. Odds ratio and 95% confidence interval were used as effect indexes. Results Six prospective cohort studies and two cross-sectional studies were included according to the inclusion/exclusion criteria. The results showed that snoring significantly increased the risk of essential hypertension compared with non-snoring participants [odds ratio (OR)=1.25; 95% confidence interval (CI), 1.22-1.28]. Conclusion Snoring was considered as a predictor of essential hypertension independently, which might play a role in the prevention and control of hypertension. People who snore frequently should pay close attention to their blood pressure levels in order to achieve early prevention of essential hypertension.

Biography

Huihui Xi is currently studying as a graduate student in the Nursing School of Jilin University.

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