Risk Factors for Vitamin D Deficiency in Elderly Patients Related to the STOP-Bang Questionnaire

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Abstract

Objective

Obstructive sleep apnea (OSA) is the most prevalent sleep disorder and is often underdiagnosed. The STOP-Bang questionnaire provides a straightforward and self-reportable screening tool to identify patients at high risk of developing OSA. Vitamin D deficiency is a common disorder among elderly individuals and is associated with several of the same risk factors as the parameters in the STOP-Bang questionnaire. The aim of this study was to investigate the risk factors for vitamin D deficiency in elderly individuals via the STOP-Bang questionnaire.

Materials and methods

This prospective observational study included 468 individuals over 60 years of age who were part of the Healthy Aging Project, a study conducted by Chang Gung Memorial Hospital (CGMH). We administered the Stop-Bang questionnaire to patients to screen for OSA. Patients completed the questionnaires and underwent blood sample collection and clinical evaluation for 25(OH)D quantification.

Results

There was a statistically significant inverse correlation between vitamin D levels and body mass index (BMI). Additionally, participants with larger neck circumferences and female sex were significantly more likely to have vitamin D deficiency. In addition, people with more daytime tiredness had significantly lower serum 25(OH)D levels than did those in the other group.

Conclusions

There is a potential relationship between vitamin D levels and neck circumference. Additionally, we found a significant inverse correlation between BMI and vitamin D levels. Future studies exploring the relationship between vitamin D deficiency and the risk of developing OSA among elderly individuals are needed.

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