Are diabetic patients being screened for sleep related breathing disorder?

Salim Surani

Salim Surani, Department of Medicine, Texas A&M University, Aransas Pass, TX 78366, United States
Author contributions: Surani S solely contributed to this paper.
Correspondence to: Salim Surani, MD, MPH, MSHM, FACP, FCCP, FAASM, Associate Professor, Department of Medicine, Texas A&M University, 1777 W Wheeler Ave, Suite 1, Aransas Pass, TX 78366, United States. srsurani@hotmail.com
Telephone: +1-361-8857722 Fax: +1-361-8507563
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Abstract

Prevalence of both diabetes mellitus and obstructive sleep apnea (OSA) is high among general population. Both of these conditions are associated with significant morbidity. OSA affects approximately 25% of men and 9% of women, and its prevalence is even higher among obese, Hispanics, African American and diabetic patients. Diabetes on the other hand besides having high prevalence in general population has even higher prevalence among ethnic populations as Hispanics and African American. Despite the availability of several simple screening tools for OSA, as Berlin questionnaire, STOP-BANG questionnaire, NAMES Criteria, the utility for screening of OSA among the diabetic population remains marginal. This in turn can lead to significant morbidity and complications related to OSA as well as worsening of diabetes mellitus and increase in diabetic complications due to untreated sleep related breathing disorder. It is therefore imperative for the primary care giver to screen for OSA among the diabetic population as a part of their routine evaluation to prevent worsening of diabetes, and its cardiovascular, renal, ophthalmologic and neurological complications.

Key words: Obstructive sleep apnea and diabetes mellitus; Obstructive sleep apnea screening; Obstructive sleep apnea and metabolic syndrome

Core tip: There is higher prevalence of obstructive sleep apnea (OSA) among diabetic population; if undiagnosed and untreated can cause increase in diabetic complications. Primary care giver should routinely screen for OSA among diabetic patients as a part of their routine evaluations.

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DIABETES

Obstructive sleep apnea (OSA) is characterized by repetitive, intermittent, complete or partial upper airway collapse, which leads to intermittent hypoxia, and sleep fragmentation. In addition, it also leads to increased hormonal fluctuations leading to an increased risk of hypertension, insulin resistance, heart attack, stroke and metabolic syndrome[1]. OSA is recognized as a chronic disorder affecting 24% of men and 9% of women in the general population, and its prevalence increases when looking at the older population[2]. Its prevalence is even higher among the obese population and diabetics reach as high as 33%-77%[3]. Several screening questionnaires have been utilized for detection of sleep related breathing disorders. These include the Berlin Questions, NAMES Criteria, STOP-BANG questionnaires, American Society of Anesthesiologists (ASA), and the Sleep Disorder questionnaire. Sensitivities range from 83.6% for STOP-BANG to 86% in the Berlin questionnaire, and specificity from 38.2% for ASA to 77% with Berlin questionnaire[4-8].
The author suggests an important role for the national, regional, and local societies to educate the primary care practitioner and diabetes providers to make OSA screening a part of their armamentarium.

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