Individuals with Metabolic Syndrome and Unrecognized Sleep Apnea can be Identified by an Employer-sponsored Healthcare Program and At-home Sleep Study

Background

- Metabolic syndrome (MetS) consists of 3 or more of the following 5 components: abdominal obesity, high triglycerides, low HDL, high blood pressure, and high fasting glucose levels. MetS is associated with increased risk for diabetes and cardiovascular disease.1
- Between 50% and 60% of people with MetS also have obstructive sleep apnea (OSA), defined as intermittent interruption in airflow that occurs during sleep, which further increases the risk for cardiovascular disease and diabetes.2 OSA can be successfully treated with continuous positive airway pressure (CPAP), which may also reduce the severity of MetS and associated cardiovascular risk.2
- Although OSA is common among people with MetS, many may not be aware they have OSA.
- Objective: In this study, investigators evaluated whether an employer-sponsored healthcare outreach program could help identify individuals with MetS who may have unrecognized OSA and refer them to a provider for care.

Methods

- At an annual workplace screening, 900 individuals with MetS and possible OSA were invited to participate in an at-home sleep study.
  - A questionnaire about OSA symptoms was used to identify people with possible OSA who did not have a prior diagnosis of the condition.
- Study participants used an FDA-approved diagnostic device for at-home OSA testing.
  - The device recorded apnea-hypoapnea index (AHI) results, which were evaluated by a sleep specialist.
  - Study physicians explained the findings of the AHI results during a telephone consultation with study participants.
    - Participants with moderate (AHI: 16-30) to severe (AHI: >30) OSA were referred to care.

Results

- Among the 89 (9.9%) individuals who agreed to participate in the study.
  - 21% had 3 MetS components, 53% had 4, and 20% had 5
  - 30% had diabetes
  - 83% had high blood pressure
  - >50% had abdominal obesity
- Among the 52 (58%) study participants who received a diagnosis of OSA
  - 50% had moderate OSA
  - 50% had severe OSA
  - 56% had a telephone consultation with a study physician and were referred to care

Conclusions

- The findings of this study showed that an employer-sponsored healthcare outreach program can help identify individuals with unrecognized OSA and refer them to a provider for care.