

feedback on the OSA-Q, and completed a survey regarding its comprehensiveness, format/content, utility, and acceptability in clinical practice. These clinicians endorsed the OSA-Q for ease of use, language simplicity, convenience of electronic platform, and speed of completion (3-5 min). They also indicated that the OSA-Q would be useful in clinical practice and enhance patient communications (69% and 77%, respectively). The OSA-Q was revised and finalized for psychometric testing, based on clinician comments.

Conclusion: A new AASM-supported PROM to monitor OSA in clinical practice has been developed, including the patients' perspective according to FDA guidance. This OSA-Q shows content validity and is positively perceived by clinicians. Psychometric testing of the OSA-Q is underway to establish its measurement properties and demonstrate its validity, reliability, and sensitivity to change in patients with OSA.

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ASSOCIATION OF HIGH-RISK OBSTRUCTIVE SLEEP APNEA WITH INFLAMMATORY MARKERS IN ASYMPTOMATIC YOUNG AND MIDDLE-AGED ADULTS IN MIAMI HEART (MIHEART) STUDY AT BAPTIST HEALTH SOUTH FLORIDA

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Introduction: Obstructive Sleep Apnea (OSA) is associated with elevated inflammatory markers in those with cardiovascular disease (CVD). In contrast, there are limited data to support this association in asymptomatic individuals. The Miami Heart Study measured high sensitivity C-reactive protein (hs-CRP), Interleukin 6 (IL-6) and TNF-Alpha in a cohort of asymptomatic individuals from the general population. We hypothesized that there will be significant association of high OSA risk with inflammatory markers in Miami Heart Study cohort free of CVD.

Methods: We analyzed data for 2359 clinical CVD-free participants from the Miami Heart Study, age 40-65 years (May 2015-Sept 2018). High OSA risk included those with an OSA diagnosis and/or those with high risk using the Berlin questionnaire. Poisson regression analyses were utilized to examine the associations between high OSA risk (reference: low risk) and hs-CRP, IL-6 and TNF alpha levels (continuous), in univariate and multivariate models (adjusting for age, sex, race/ethnicity [model 2], and BMI, diabetes, hypertension, high cholesterol and smoking [model 3]).

Results: 800 (34%) participants were categorized as high OSA risk. Those with high OSA risk tended to be Hispanic, male, and with a higher CVD risk factor burden, especially obesity (64% vs 17%, $p < 0.005$) when compared to those with low OSA risk. Patients with high OSA risk had higher median values of hs-CRP (2.1 vs 1.0), IL-6 (2.0 vs 1.4), and TNF-alpha (1.2 vs 1.1) when compared to those with low OSA risk (all $p < 0.001$). When adjusting for age, sex, and race/ethnicity, the mean difference between patients with high and low OSA risk in hs-CRP was 1.86 (95% CI 1.69, 2.02), and 0.85 (95% CI 0.71, 0.99) in IL6. When further adjusting for CVD risk factors, these differences were attenuated, but statistically

significant (hs-CRP [0.32, 95% CI 0.16, 0.48]; IL6 [0.37, 95% CI 0.21, 0.53]). In adjusted analyses, TNF-alpha was not statistically different between OSA risk populations.

Conclusion: Individuals at high risk for OSA had significant higher levels of hs-CRP and IL6, signaling to potential role of OSA in mediating the increased inflammatory markers in asymptomatic CVD risk free individuals.

Support (If Any): Baptist Health South Florida

0705

ASSOCIATION OF HIGH RISK OBSTRUCTIVE SLEEP APNEA WITH ATHEROSCLEROTIC PLAQUE, CORONARY STENOSIS AND CORONARY ARTERY CALCIUM SCORE IN ASYMPTOMATIC YOUNG AND MIDDLE-AGED ADULTS IN THE MIAMI HEART (MIHEART) STUDY AT BAPTIST HEALTH SOUTH FLORIDA

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Introduction: Obstructive Sleep Apnea (OSA) is associated with clinical cardiovascular disease (CVD). There are limited data evaluating association with subclinical CVD measured by cardiac computed tomography (CT). We hypothesized there would be significant association between high OSA risk and atherosclerotic plaque, coronary stenosis, and coronary artery calcium (CAC) score in Miami Heart Study cohort free of CVD.

Methods: Data from CVD free 2359 participants, age 40-65 years (May 2015-Sept 2018) from greater Miami were analyzed. Cardiac CT measured CAC, coronary plaque burden and stenosis. High OSA risk was defined as either OSA diagnosis and/or a high risk from Berlin questionnaire. Logistic regression examined association between high OSA risk (reference low OSA risk) and any plaque, coronary stenosis $>50\%$, and CAC (> 0 and > 100 vs 0) in unadjusted models, and after accounting for age, sex, race/ethnicity (model 2), and BMI, diabetes, high cholesterol, and smoking (model 3).

Results: 800 (34%) participants had high OSA risk; were more likely to be male, Hispanic, with higher CVD risk factor burden compared to low OSA risk. High OSA risk had higher prevalence of any plaque (60% vs 44%), coronary stenosis $\geq 50\%$ (8.3% vs 4.8%), CAC scores $>0-99$ (34% vs 26%), and CAC score ≥ 100 (16% vs 12%), compared to low OSA risk (all $p < 0.05$). High OSA risk was associated with higher odds of any plaque, coronary stenosis $\geq 50\%$, high-risk plaque features, CAC > 0 and CAC ≥ 100 in univariable models. When adjusting for age, sex and race/ethnicity, these patterns persisted, with 1.58 higher odds of any plaque (95% CI 1.31, 1.91), 1.54 higher odds of coronary stenosis $\geq 50\%$ (95% CI 1.08, 2.20), 1.37 higher odds of having CAC > 0 (95% CI 1.13, 1.66). Associations became non-statistically significant when adjusting for CVD risk factors, except any plaque, which was independently associated after fully adjusted (OR 1.31 (1.05, 1.63)).

Conclusion: Individuals with high risk for OSA, significantly prone for CVD risk factor, have higher likelihood for presence of any plaque, significant stenosis and CAC scores > 0 , with these associations mostly mediated by CVD risk factors.

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