MILD FORMS OF OBSTRUCTIVE SLEEP APNEA ARE ASSOCIATED WITH SUBCLINICAL CORONARY ATHEROSCLEROSIS AMONG CLIMACTERIC WOMEN

Poster Contributions
Hall C
Saturday, March 29, 2014, 10:00 a.m.-10:45 a.m.

Session Title: Prevention: Lipids and Risk Factors
Abstract Category: 20. Prevention: Clinical
Presentation Number: 1112-151

Authors: Rodrigo Pinto Pedrosa, Ricardo Q. Coutinho, Isly M. L. Barros, Ana Kelley L. Medeiros, Ana Paula D. L. Leite, Marcio Bittencourt, Liana L. Carvalho, Martinha M. B. Carvalho, Thais C. Lustosa, Maria Priscila F. Lira, William A. Chalela, Moacir N. L. Ferreira, Laura O. B. F Costa, PROCAPE - Universidade de Pernambuco, Recife, Brazil

Background: Obstructive sleep apnea (OSA) is an emerging risk factor for coronary disease particularly among middle-age men. However, the independent contribution of OSA to cardiovascular risk among women is not clear. Moreover, mild forms of OSA may have less impact on the presence of coronary atherosclerosis. In this study we evaluate the association between OSA and presence of subclinical atherosclerosis assessed by tomographic coronary calcium score in climacteric women.

Methods: We evaluated consecutive women without manifest cardiovascular disease (heart failure, coronary disease, and stroke), aged between 45 and 65 years, from two gynecologic clinics. Physical examination, computed tomographic examination for tomographic coronary artery calcification (CAC) score, portable sleep study recordings, and serum biochemistry were obtained from all patients. Multiple logistic regression model was used to evaluate the association between OSA with CAC, controlling for traditional risk factors (Framingham Risk Score - FRS).

Results: There were 214 women [age: 56(52-61) years; body mass index: 28 (25-31) kg/m2, 25% diabetes, 62% hypertension]. OSA (apnea-hypopnea index - AHI ≥15 events/h) and severe OSA (AHI ≥30 events/h) were diagnosed in 21 (9.8%) and 3 (1.4%) women, respectively. None of the participants had a previous OSA diagnosis. CAC was present in 19% and in 4% of participants with and without OSA, respectively (p=0.02). OSA was associated with high CAC in univariate logistic regression (Odds Ratio=6.25, p<0.01). Even after adjusting for FRS, OSA was independently associated with CAC (Odds Ratio=4.95, p=0.02).

Conclusion: In climacteric women without manifest cardiovascular disease, the presence of OSA is independently associated with the presence of CAC. OSA identifies patients at risk for coronary disease and may represent a highly prevalent modifiable risk factor.