MYOCARDIAL ISCHEMIA AND INFARCTION

ADDITIONAL PROGNOSTIC VALUE OF SUSPECTED OBSTRUCTIVE SLEEP APNEA IN INDIVIDUALS WITH NON-ST ELEVATION ACUTE CORONARY SYNDROMES

ACC Poster Contributions
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Objective: To test the hypothesis that clinical suspicion of obstructive sleep apnea (OSA) provides additional prognostic value regarding recurrent events during hospitalization of individuals with non-ST elevation acute coronary syndromes (ACS).

Methods: Individuals admitted with unstable angina or non-ST elevation acute myocardial infarction were consecutively selected for the study. The validated Berlin Questionnaire was utilized for defining individuals as low (0-1 positive criterion), intermediate (2 positive criteria) and high (≥3 positive criteria) clinical probability of OSA. Cardiovascular events during hospitalization were defined as the combination of death, non-fatal myocardial infarction or non-fatal refractory angina.

Results: One hundred sixty-eight patients were studied, aged 70 ± 12 yrs, 54% males, body mass index of 26 ± 5.2 Kg/m2. Low, intermediate and high clinical probability of OSA was respectively observed in 45 (27%), 83 (49%) e 40 (24%) patients. During a median hospitalization of 8 days, the incidence of events was 13% (12 deaths, 4 non-fatal myocardial infarctions and 6 non-fatal refractory anginas). Cardiovascular events occurred in 25% of patients with high clinical probability of OSA, followed by 15% of those with intermediate probability and no events in those with low probability (P = 0.001). Body mass index was similar between patients with and without events (26.4 ± 5.5 vs. 26.5 ± 5.2 Kg/m2; P = 0.94). After logistic regression adjustment for the GRACE Score and severe coronary disease on angiography (triple-vessel or left main disease), probability of OSA by Berlin Questionnaire remained an independent predictor of events (OR = 4.6; 95% CI = 1.9 - 11; P = 0.001). The prognostic value of the GRACE Score, measured by a C-statistics of 0.72 (95% CI = 0.59 - 0.85), was significantly improved to 0.82 (95% CI = 0.73 - 0.92) after inclusion of the OSA probability in the predictive model (P = 0.03 for comparison between the two ROC curves).

Conclusion: Clinically suspected obstructive sleep apnea independently predicts incidence of recurrent events during hospitalization and improves the prognostic accuracy of the GRACE Score in patients with non-ST elevation ACS.