Risk assessment of obstructive sleep apnea in coronary heart disease patients

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Introduction: Obstructive sleep apnea (OSA) independently increase the risk of coronary events.[1-3] The study aimed to assess the risk of OSA in patients with coronary heart disease and examine the correlation of risk for OSA with age, sex, associated comorbidities, body mass index (BMI), biochemical and echocardiographic characteristics.

Patients and Methods: Cross-sectional study included 131 patients hospitalized at the Department of Cardiology, University Hospital Centre Osijek, due to acute coronary syndrome. The study included patients of both sexes, median age of 67 years. Three standardized questionnaires were used in the evaluation of the risk for OSA: the STOP questionnaire, the Berlin questionnaire, and the Epworth sleepiness scale (ESS). The respondent's neck circumference was measured. Data on comorbidities, echocardiographic and biochemical parameters were collected from medical records.

Results: According to the STOP questionnaire, 83 (63.4%) respondents had an increased risk for OSA, 45 (34.4 %) patients according to the Berlin questionnaire, and 28 (21.4%) according to the ESS questionnaire. According to the STOP questionnaire, patients with hypertension (P < 0.001), gastroesophageal reflux disease (GERD) (P = 0.02), and patients using sedatives (P = 0.02) had an increased risk of OSA. Also, respondents with positive STOP questionnaire had higher BMI (P < 0.001) and greater neck circumference (P = 0.02). According to the Berlin questionnaire, patients at increased risk for OSA had significantly higher BMI (P = 0.001), neck circumference (P = 0.01) and lower troponin values (P = 0.01). Patients with a positive ESS had significantly higher urea (P = 0.01) and creatinine values (P = 0.003). The sum of ESS questionnaire was significantly and positively related to BMI (Rho = 0.194), neck circumference (Rho = 0.180) and urate values (Rho = 0.179).

Conclusion: Increased risk for OSA, in patients with coronary disease is associated with comorbidities such as hypertension and GERD, increased BMI and neck circumference, sedative use, renal injury and urate values. Early recognition of OSA, with simple and available tests, in patients with coronary disease will have a favorable effect on the overall therapeutic response to treatment and will influence the prevention of further complications.

LITERATURE ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||

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