

Treatment

Sleep disorders in patients with overweight and acute and exacerbated chronic heart failure

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Funding Acknowledgements: Type of funding sources: Public Institution(s). Main funding source(s): Medical University - Sofia University Hospital "Tsaritsa Yoanna – ISUL"

Background: Often accompanying comorbidity in patients with heart failure and overweight is sleep disorders. Detection and treatment of sleep apnea will be helpful in these patients.

Purpose: To determine the phenotypic characteristics of sleep apnea in these patients. To determine whether there is a link between forms of sleep apnea and type of heart failure.

Methods: Hospitalized 46 patients with acute and exacerbate heart failure. Measuring of NT proBNP. Sleep apnea screening with Apnea-Link™. Echocardiographic assessment of left ventricular ejection fraction (LVEF) and the E/e' ratio. Statistical methods to compare independent samples and correlation analysis for linear dependence.

Results: Of the 46 overweight patients with acute and exacerbated chronic heart failure, sleep apnea was diagnosed in 36 patients (78.2%). Of these, 83.3% (n = 30) have obstructive sleep apnea (OSA) and 16.7% (n = 6) have central sleep apnea (CSA). There was a statistically significant difference in LVEF for the group with CSA (n = 6) vs group with OSA (n = 30) (41.67 ± 13.88 vs. 50.57 ± 8.16 , $p = 0.038$). For diastolic function didn't reach statistical significance for E/e' ratio (20.33 ± 5.00 vs. 17.06 ± 4.02 , $p = 0.089$). Regarding NTproBNP, there is no significant difference between the groups with OSA and those with CSA (2978.5 ± 2664.1 vs. 2063.36 ± 1877.27 pg/ml, $p = 0.316$). There is a moderate negative correlation with LVEF and number of central sleep apnea events ($r = -0.334$, $p = 0.047$).

Conclusions: With greater frequency occurs obstructive sleep apnea. Left ventricular systolic function is lower in patients with central sleep apnea. There is a reverse correlation between ejection fraction and number of central apnea.