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[Cardiovascular morbidity in patients with obstructive sleep apnea in relation to the severity of respiratory disorder]

[Article in German]

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BASIC PROBLEM AND OBJECTIVE: Untreated patients with obstructive sleep apnoea (OSA) have an increased risk of death from cardiovascular (cv) disease. This study was undertaken to determine the disease spectrum in patients with sonographically proven OSA (apnoea-hypopnoea index ≥ 5), with special reference to cv risk factors and accompanying diseases in relation to the severity of their respiratory abnormalities. The study's aim was to clarify what risk factors and accompanying diseases were associated with different degrees of OSA. **PATIENTS AND METHODS:** A systematic recording of cv risk factors and accompanying diseases as well as their association to the severity of nocturnal respiratory disorders was made for 175 patients (165 men, 10 women, mean age 54 \pm 10.2 years) with sonographically proven OSA (mean apnoea-hypopnoea index 37 \pm 24.4). **RESULTS:** The body mass index (BMI) was significantly related to the severity of the respiratory disorder (apnoea-hypopnoea index, AHI, $P < 0.05$, odds ratio [OR]: 1.95; 95% confidence interval [CI]: 1.15-3.31). In a multivariate analysis, nocturnal breathing pause ($P < 0.05$; OR: 3.8; 95% CI: 1.3-11.1), left ventricular hypertrophy ($P < 0.01$; OR: 3.9; 95% CI: 1.5-10.3) and diabetes mellitus ($P < 0.05$; OR: 4.2, 95% CI: 1.2-14.7) were independently associated with a high-grade breathing disorder (AHI ≥ 20). The incidence of left ventricular hypertrophy rose with an increasing severity of nocturnal OSA. **CONCLUSION:** These data indicate that in patients with high-grade OSA (AHI ≥ 20) there is a further grouping together of cardiovascular risk factors, namely increasing body weight, diabetes mellitus, arterial hypertension and left ventricular hypertrophy; they explain the increased mortality rate among these patients from vascular complications.

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