Abstract: P1767

Prevalence and clinical significance of sleep-disordered breathing in patients with hypertrophic cardiomyopathy

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Background:

Despite major advances in knowledge on hypertrophic cardiomyopathy (HCM) at the genetic and molecular levels, the understanding of essential clinical aspects remains limited. The aim of this study is to identify the prevalence and clinical significance of Sleep-disordered Breathing (SDB) in a large patient population.

Methods:

201 patients (78 women, age 64 ± 15 years) with HCM were screened for obstructive (OSA) or central (CSA) sleep-disordered breathing using multichannel cardiorespiratory polygraphy. Additionally, patients received a spiroergometric examination and echocardiography. SDB was defined as apnea-hypopnea index (AHI) = 5/h and OSA / CSA differentiated after the majority of events.

Results:

SDB was documented in 60% of all patients. OSA was diagnosed in 71 patients (35.3%) and CSA in 44 (21.9%) patients. SDB requiring treatment was found in 106 (52.7%) patients. In patients with AHI = 15/h NYHA class was increased (2.1 vs. 2.39, p = 0.04) and maximal O2 uptake during exercise was lower (20.1 vs. 16.1 p= <0.001). Also left atrial diameter was significantly larger (46.9 mm vs. 50.41 mm, p = 0.01) and rate of atrial fibrillation was increased (0.5 vs. 0.72 p = 0.03). CSA pts had a larger left atrial diameter compared to pts with OSA (52.13 mm vs. 47.82 mm, p = 0.02).

Conclusion:

There is a high prevalence of SDB in HCM patients. Patients with moderate to severe SDB showed increased atrial fibrillation incidence and reduced cardiopulmonary performance. Whether the SDB has an independent prognostic relevance in patients with HCM needs to be elucidated.