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The most accurate predictors of arterial hypertension in patients with obstructive sleep apnea syndrome

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It is estimated that 30% to 40% of hypertensive patients have OSA, and 50% to 56% of OSA patients have hypertension. Scientific data about the interaction between OSA and hypertension are continuously increasing. However, it had been difficult to clarify the cause-effect relationship between the two disorders. Data from some studies support a dose-response relationship of OSA at baseline and the cumulative incidence of hypertension. In contrast, other studies have reported that the unadjusted risk of hypertension increases in concert with AHI (apnea-hypopnea index), but this association was not significant after adjustment for potential confounding variables. Latest data from a retrospective study published in the *"Journal of Clinical Hypertension"* have revealed that age, BMI, comorbidity (CCI), daytime oxygen saturation, and indices of hypoxia during sleep are the most precise predictors for hypertension. In contrast, AHI and DI (desaturation index) participated weakly in the statistical model. Therefore, although AHI and DI were independent predictive factors for hypertension, both were not included in the most accurate predictors for development of hypertension. It seems that AHI and DI are more complex measures reflecting the degree of intermittent hypoxia, and therefore are susceptible to variability in the clinical setting. It is suggested that daytime and nocturnal hypoxemia as consequences of chronic intermittent hypoxia play a central role in OSA-related hypertension. In particular, the shift from chronic intermittent hypoxia to daytime and nocturnal hypoxia may represent a direct prelude to the development of hypertension.

Biography

Natsios Georgios completed his MD degree from University of Thessaly, Larissa, Greece, in 2007. After having completed his residency in Internal Pathology at General Hospital of Kozani, Greece, from 2011 to 2012 (two years), he has continued training in Clinical Cardiology at General Hospital of Kilkis, Greece, from 2013 to 2016 (three years). He has completed his PhD from University of Thessaly and currently pursuing his training at the 1st Cardiology department of University of General Hospital of Thessaloniki AHEPA. The Doctoral thesis is titled; "Cardiovascular risk in mild-moderate Obstructive Sleep Apnea Syndrome (OSAS)''. He has been Research Associate of the Respiratory Medicine Department and Sleep Laboratory, University Hospital of Larissa, Greece, from 2010. He successfully completed a European Resuscitation Council ALS PROVIDER COURSE on 23-24th February 2013 in Larissa, Greece. He has published his research work in many reputed journals including *Journal of Clinical Hypertension*.

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Page 30