

Abstract 2793

Effect of CPAP treatment on the incidence of cardiovascular events and hypertension in non-sleepy OSAS patients. A long-term RCT.

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Abstract Body

Aim: To evaluate the effect of CPAP treatment on the incidence of cardiovascular events (CVE) or hypertension, in a cohort of non-sleepy patients with obstructive sleep apnea (OSA).

Methods: We have included 724 consecutive patients with an apnea-hypopnea index (AHI) $> 20h^{-1}$ and Epworth sleep scale (ESS) < 10 from 14 university hospitals in Spain. Subjects with hypertension at baseline were not excluded ($n= 374$). Patients were randomized to CPAP ($n=358$, 87% males, 52 ± 11 yrs, ESS 6.5 ± 2 , AHI $46\pm 21 h^{-1}$) or to conservative treatment ($n=366$, 83% males, 52 ± 11 yrs, ESS 6.5 ± 2 , AHI $39\pm 18h^{-1}$). Patients were followed during a median of 4 years and the composite outcome was CVE or new diagnosis of hypertension.

Results: We registered 58 CVE and 148 new cases of hypertension. The ratio of incidence density (IDR) of CPAP group vs. conservative treatment was 0.83; 95% CI (0.63, 1.1) $p=0.195$. In the subgroup of patients with hypertension at baseline, the corresponding IDR was 0.63; 95% CI (0.33, 1.19) $p=0.158$. Mean CPAP compliance was 4 ± 2 h/night. In the sample of patients that used CPAP $> 4h/night$ the IDR vs. conservative treatment was 0.72; 95% CI (0.52, 0.98) $p= 0.039$ while in patients with hypertension at baseline the corresponding IDR for CVE was 0.52; 95% CI (0.25,1.1) $p=0.089$.

Conclusions: In non-sleepy patients with OSA, CPAP treatment reduce the incidence of CVE and hypertension, with a statistical significant decrease for those subjects that use CPAP for at least 4 hours/night.

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