

عنوان البحث:

Can continuous positive air way pressure reverse carotid artery atherosclerosis in obstructive sleep apnea?

## **Abstract:**

Introduction: Data from epidemiological studies and randomized clinical trials stronglysuggest that obstructive sleep apnea (OSA) is associated with elevated risk of cardiovascular events. Although OSA and cardiovascular diseases share many risk factors, studies have demonstrated that OSA is an independent risk factor of arterial hypertension and atherosclerosis.

<u>Objective:</u> To determine the impact of treatment with continuous positive airway pressure(CPAP) on carotid artery intima-media thickness (CIMT) in patients with OSA.

Methods: 40 newly diagnosed OSA patients were assigned into two groups. Conservative treatmentgroup (CT, n=20) which refused CPAP treatment, and CPAP group (CPAP, n=20) whichreceived CPAP treatment. CIMT was determined at baseline and after 6 months.

Results: Mean follow-up time was  $6.1\pm2.1$  months. At baseline, all measurements were similarin both groups and did not changesignificantly in CT group after 6 months. In contrast, a significant change occurred in CIMT in CPAP group (8 (20) vs.-115 (10)  $\mu$ m, p= 0.03) from baseline.

Conclusion: CPAP significantly reduced CIMT in OSA patients.