[Original Research **Sleep Disorders**]

CHEST

Impact of OSA on Cardiovascular Events After Coronary Artery Bypass Surgery

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BACKGROUND: The impact of OSA on new cardiovascular events in patients undergoing coronary artery bypass graft (CABG) surgery is poorly explored.

METHODS: Consecutive patients referred for CABG underwent clinical evaluation and standard polysomnography in the preoperative period. CABG surgery data, including percentage of off-pump and on-pump CABG, number of grafts, and intraoperative complications, were collected. The primary end point was major adverse cardiac or cerebrovascular events (MACCEs) (combined events of all-cause death, myocardial infarction, repeated revascularization, and cerebrovascular events). Secondary end points included individual MACCEs, typical angina, and arrhythmias. Patients were evaluated at 30 days (short-term) and up to 6.1 years (long term) after CABG.

RESULTS: We studied 67 patients (50 men; mean age, 58 ± 8 years; mean BMI, 28.5 ± 4.1 kg/m^2). OSA (apnea-hypopnea index ≥ 15 events/h) was present in 56% of the population. The patients were followed for a mean of 4.5 years (range, 3.2-6.1 years). No differences were observed in the short-term follow-up. In contrast, MACCE (35% vs 16%, $P = .02$), new revascularization (19% vs 0%, $P = .01$), episodes of typical angina (30% vs 7%, $P = .02$), and atrial fibrillation (22% vs 0%, $P = .0068$) were more common in patients with than without OSA in the long-term follow-up. OSA was an independent factor associated with the occurrence of MACCE, repeated revascularization, typical angina, and atrial fibrillation in the multivariate analysis.

CONCLUSIONS: OSA is independently associated with a higher rate of long-term cardiovascular events after CABG and may have prognostic and economic significance in CABG surgery.

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