Letters to the Editor

Sleep Apnea and the Risk of Stroke in the Elderly

To the Editor:

Obstructive sleep apnea (OSA) is emerging as an important risk factor for stroke. Recent prospective studies, focusing on middle-aged adults with OSA, showed an increased risk of stroke after a follow-up that varied from 4 to 10 years. In addition, Marin et al found that continuous positive airway pressure therapy promotes significant reduction on the composite risk of fatal and nonfatal cardiovascular events, including stroke. Despite these convincing data, the majority of strokes does not occur in this age rate, limiting the external validity of the relationship between OSA and stroke for more advanced age. In addition, the impact of OSA in patients >60 years have been questioned in a recent study from Sleep Health Study, because no association was found between OSA and systolic/diastolic hypertension. In order to explore the impact of OSA in elderly patients, Munoz et al performed an important population-based study designed to investigate the risk of stroke in the noninstitutionalized elderly people (70 to 100 years old) that were submitted to polysomnography at baseline. In a follow-up of 6 years, these authors found that severe OSA was associated with an increased risk of stroke (hazard ratio of 2.52 after adjustments for confoundable factors). Therefore, this study no longer supports the concept that OSA is a “benign” syndrome among elderly patients. The relationship between OSA and stroke is particularly relevant because stroke is a leading cause of death. The authors concluded that randomized trial designed to investigate the influence of continuous positive airway pressure therapy on stroke is required to complete the demonstration of a causative relationship. However, in order to establish definitive causative relationship between OSA and stroke we would like to add an important postulate: it is necessary to include evidence for a biological plausibility involving the independent association of OSA and stroke. Additionally, the vascular impairment was directly related to OSA severity. Although no previous studies prospectively evaluate the progression of atherosclerosis in middle-aged, apparently healthy adults, independent of other traditional risk factors, Severe OSA patients presented increased arterial stiffness, intima-media thickness and carotid diameter compared with appropriate controls. In addition, the vascular impairment was directly related to OSA severity. Although no previous studies prospectively evaluate the progression of atherosclerosis in middle-aged, apparently healthy adults, independent of other traditional risk factors, Severe OSA patients presented increased arterial stiffness, intima-media thickness and carotid diameter compared with appropriate controls.

Disclosures

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