LETTERS TO THE EDITOR

Every Patient With Acute Ischemic Stroke Should Be Screened for Sleep-Disordered Breathing

Comment on Haba-Rubio et al. Effect of CPAP treatment of sleep apnea on clinical prognosis after ischemic stroke: an observational study. *J Clin Sleep Med*. 2019;15(6):839–847.

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Haba-Rubio et al¹ recently reported that positive airway pressure (PAP) treatment in patients who have experienced stroke and who have moderate to severe sleep disordered-breathing (SDB) was associated with lower rates of stroke recurrence and death. The authors have followed 101 patients for 2 years and demonstrated that patients who have experienced stroke and who have SDB under PAP therapy show significantly higher cardiovascular survival and significantly lower stroke recurrence and mortality. In fact, obstructive sleep apnea (OSA) is now accepted as an independent risk factor for cardiovascular disorders.² In patients with ischemic stroke, co-existence of OSA would result in worse prognosis and higher mortality.³ In our previous pilot study, 24 patients were enrolled; of these 11 (45.8%) had PAP therapy initiated within 48 hours of stroke onset, and 13 patients were accepted as intolerant to PAP therapy for various reasons. We have shown that patients with ischemic stroke and OSA being treated with PAP therapy (treatment group) have a better prognosis at the end of the second month following stroke and better functioning in daily living activities compared to patients with ischemic stroke and OSA who were not treated with PAP therapy (intolerant group).⁴ Here after 10 years, we reviewed final findings in our patients included in the aforementioned study. In the treatment group, 4 of 11 patients were lost to follow-up and 7 patients with ischemic stroke and OSA, who were treated by PAP therapy in the first 48 hours following stroke, could be reevaluated at the end of 10 years. Four patients in the treatment group (4 of 7 patients; 57.1%) died of stroke-related complications. In the intolerant group, 5 of 13 patients failed to complete regular follow-ups. Of the remaining 8 patients, 4 were lost due to stroke-related complications (50%). Mortality ratios were similar between the two groups ($P = .595$). The interval between onset of ischemic stroke and death was much shorter in the intolerant group in comparison with those under efficient PAP therapy (3.75 years versus 5.25 years; $P = .149$). Nevertheless, this difference failed to reach statistical significance, probably because of the very small number of study subgroups. It seems that mortality ratios following stroke may not be associated

with the presence of SDB, treated or not, which was demonstrated in a large prospective study by Brown et al⁵ This may be related to high mortality associated with nature of stroke, as half of our patients were lost within 5 years secondary to stroke-related complications. However, patients with untreated OSA were observed to have higher mortality rates earlier in the poststroke period, though not significant. It should definitely be stated that short- and long-term beneficial effects of PAP therapy initiated at the acute stage of ischemic stroke deserve attention and randomized cohort studies should be carried out. As pointed out in the study by Haba-Rubio et al,¹ SDB is amenable to treatment, and it may represent an important modifiable risk factor for poor outcome in ischemic stroke. For this reason, it should be searched for in every patient with acute ischemic stroke, and if present, should be treated to improve both short-term and long-term recovery from stroke, as well as to decrease risk of recurrence and mortality.

CITATION

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