AUTHORS’ REPLY

Fábio José Fabrício de Barros Souza1, Anne Rosso Evangelista2, Juliana Veiga Silva2, Grégory Vinícius Périco3, Kristian Madeira4,5

In our study of cervical CT in patients with OSA, we found that airway volume increased by 7.9 cm$^3$ (17.5%) when a 44° upward inclination was compared with a neutral head position. (1) Our results are reliable and show statistically significant differences despite the small sample size. (1) The title states that the study involved cervical CT rather than CT with analysis of nasal airway volume. In the studies of imaging evaluation of airway volume cited in the Discussion section of our study, airway volume was measured from the hard palate to the base of the epiglottis for analysis of interventions involving a mandibular advancement splint, maxillomandibular advancement surgery, and continuous positive airway pressure. (1) The clinical foundation for our study was provided by a previous study of OSA patients undergoing polysomnography; in that study, which was cited in our article, the apnea-hypopnea index was measured at baseline (i.e., during standard polysomnography) and after elevation of the head of the bed, the latter having resulted in a reduction in the apnea-hypopnea index. (1) A possible functional explanation is that head elevation contributes to upper airway patency, prevents rostral fluid shift, and averts tongue collapse, reducing upper airway resistance, changing upper airway critical pressure, affecting gravitational effects, and altering neuromuscular activity. (1)

REFERENCES