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LETTERS TO THE EDITOR

The management of pediatric obstructive sleep apnea in the COVID-19 era: to PAP or not to PAP?

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Although sleep medicine specialists have transitioned well in the COVID-19 era, unique challenges have arisen highlighting the paucity of evidence (or lack thereof) that has traditionally guided decision-making for pediatric obstructive sleep apnea (OSA). At the onset of the pandemic, adenotonsillectomy (the "first-line" management for most children with moderate to severe OSA) was labeled an elective surgical procedure and one that confers a high risk for COVID-19 transmission. Therefore, unless the OSA was severe enough to warrant an urgent adenotonsillectomy, otolaryngologists were deferring surgery. This led to a slew of phone calls to sleep medicine clinics requesting nonsurgical management for OSA. However, simultaneously, continuous positive pressure therapy (CPAP) was added to the World Health Organization list of aerosol-generating procedures, leading to significant angst over in-laboratory titrations during the pandemic and worry about aerosolization of viral particles in the sleep laboratory and patients' homes.[1] In addition, concern that untreated OSA can increase morbidity related to COVID-19 infection has further complicated the issue.[2,3] This begs the question, what is the best way to manage a child with moderate to severe OSA in the COVID-19 era?

CPAP is an effective therapy for pediatric OSA when used consistently. Positive pressure is delivered through use of a mask that in children often requires real-time fitting by an experienced respiratory therapist (mask fitting). Because this therapy poses a risk of aerosolizing viral particles, sleep facilities have been cautious with liberal scheduling of in-laboratory positive airway pressure titration polysomnograms. Although these studies have resumed (with strict policies in place, such as pre-procedure COVID-19 testing, 1-to-1 respiratory therapist-to-patient ratio, and the use of personal protective equipment), business remains slow and worry prevails over false-negative tests. While most adults with OSA are managed with CPAP initiated in the unattended setting (auto-titrating CPAP) and can choose a mask interface of their liking, there is no such guidance on empiric CPAP use in children and in-laboratory titration studies and in-person mask-fitting appointments have traditionally been required. While it is encouraging that a handful of studies in children have demonstrated efficacy of auto-titrating CPAP,[4,5] these studies focused on older children, whereas those at highest risk of OSA from adenotonsillar hypertrophy are typically younger. Moreover, it is less clear whether these auto-titrating devices have algorithms that can safely treat younger children with OSA.

This brings up the second critical issue, one that relates to the use of CPAP and risk of COVID-19 transmission in the household. The Centers for Disease Control and Prevention's guidance regarding risk mitigation is difficult to apply in children who cannot be effectively isolated, often share rooms with siblings, and need adult supervision and assistance to wear the mask interface and use the CPAP device. Frequent checks during the night may also be needed, theoretically increasing the risk of exposure to the caregiver. How, then, must we empower our patients (and their parents) to ensure their disease is adequately treated and their family remains safe? Perhaps it is time to think outside the box (or CPAP in this case).

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DISCLOSURE STATEMENT

The author reports no conflicts of interest.