

New literature June 2019

Eur Respir J 2011; 37: 1000–1028

DOI: 10.1183/09031936.00099710 Copyright ERS 2011

ERS TASK FORCE REPORT

Non-CPAP therapies in obstructive sleep apnoea

W.J. Randerath*, J. Verbraecken*, S. Andreas, G. Bettega, A. Boudewyns, E. Hamans, F. Jalbert, J.R. Paoli, B. Sanner, I. Smith, B.A. Stuck, L. Lacassagne, M. Marklund, J.T. Maurer, J.L. Pepin, A. Valipour, T. Verse and I. Fietze, the European Respiratory Society task force on non-CPAP therapies in sleep apnoea

ABSTRACT

In view of the high prevalence and the relevant impairment of patients with obstructive sleep apnoea syndrome (OSAS) lots of methods are offered which promise definitive cures for or relevant improvement of OSAS. This report summarises the efficacy of alternative treatment options in OSAS. An interdisciplinary European Respiratory Society task force evaluated the scientific literature according to the standards of evidence-based medicine.

Evidence supports the use of mandibular advancement devices in mild to moderate OSAS. Maxillomandibular osteotomy seems to be as efficient as continuous positive airway pressure (CPAP) in patients who refuse conservative treatment. Distraction osteogenesis is usefully applied in congenital micrognathia or midface hypoplasia. There is a trend towards improvement after weight reduction. Positional therapy is clearly inferior to CPAP and long-term compliance is poor. Drugs, nasal dilators and apnoea triggered muscle stimulation cannot be recommended as effective treatments of OSAS at the moment. Nasal surgery, radiofrequency tonsil reduction, tongue base surgery, uvulopalatal flap, laser midline glossectomy, tongue suspension and genioglossus advancement cannot be recommended as single interventions. Uvulopalatopharyngoplasty, pillar implants and hyoid suspension should only be considered in selected patients and potential benefits should be weighed against the risk of long-term side-effects. Multilevel surgery is only a salvage procedure for OSA patients.

KEYWORDS

Mandibular advancement devices, maxillomandibular osteotomy, multilevel surgery, neuromuscular stimulation, uvulopalatopharyngoplasty, weight reduction

EADSM comment: This report summaries the pros and cons for other therapies than CPAP when treating patients with Obstructive Sleep Apnea Syndrome. An article recommended to read.

Positional obstructive sleep apnea in children: prevalence and risk factors

E. Verhelst; I. Clinck; I. Deboutte; O. Vanderveken; S. Verhulst; A. Boudewyns

Received: 3 September 2018 / Revised: 9 April 2019 / Accepted: 23 April 2019

Springer Nature Switzerland AG 2019

Abstract

Purpose

Positional (supine-dependent) obstructive sleep apnea (POSA) affects about 55% of adults with obstructive sleep apnea (OSA). We aimed to study the prevalence and risk factors for POSA in children. Methods Cross-sectional analysis of data obtained in 171 children with moderate to severe OSA confirmed by polysomnography (PSG) performed over a 2-year period. POSA is defined by an obstructive apnea–hypopnea index (oAHI) in the supine position $\geq 2 \times$ oAHI in the non-supine position.

Results

The overall prevalence of POSA was 18.7%. Children with POSA were significantly older ($p < 0.001$), had a higher prevalence of obesity ($p = 0.04$), a lower tonsil score ($p = 0.049$), and less severe OSA (lower oAHI) ($p = 0.02$) compared to children without POSA, while age was the only significant independent predictor of POSA. The ratio AHI supine to AHI nonsupine was not significantly higher during REM than during NREM sleep in children with POSA.

Conclusions

POSA is less common in children compared to adults and the prevalence of POSA increases with age. Although OSA worsens during REM sleep, this was not observed for POSA. Future studies should investigate the prevalence of POSA in specific subgroups and upper airway characteristics of POSA in children.

Keywords

Obstructive sleep apnea. Children. Sleep position. Polysomnography

EADSM comment: Positional obstructive sleep apnea (POSA) among adults is a well known phenomenon, this study has analyzed 171 children with moderate to severe obstructive sleep apnea. They concluded that positional obstructive sleep apnea increases with age as the only significant predictor for POSA.