



Revista Colombiana de Anestesiología

Colombian Journal of Anesthesiology

www.revcolanest.com.co



Review

New perspectives in the treatment of obstructive sleep apnea–hypopnea syndrome[☆]

Edgar Cortés-Reyes^{a,*}, Katherine Parrado-Bermúdez^a, Franklin Escobar-Córdoba^{b,c}

^a Department of Human Body Movement, Institute of Clinical Research, Faculty of Medicine, Universidad Nacional de Colombia, Bogotá, D.C., Colombia

^b Department of Psychiatry, Faculty of Medicine, Universidad Nacional de Colombia, Bogotá, D.C., Colombia

^c Sueño Vigilia Colombiana Foundation, Bogotá, D.C., Colombia

ARTICLE INFO

Article history:

Received 2 February 2016

Accepted 21 June 2016

Available online xxx

Keywords:

Sleep apnea syndromes

Obesity

Comorbidity

Therapeutics

Airway obstruction

ABSTRACT

Introduction: Obstructive sleep apnea–hypopnea syndrome (OSA) is an increasingly prevalent disorder in the population, which seriously compromises the quality of life of sufferers. Although continuous positive airway pressure remains the most commonly used treatment modality, its poor adhesion and relative failure have provoked several studies seeking to develop more convenient and effective alternatives for treating this condition.

Objective: To review the most effective, recent and innovative strategies that scientific evidence suggests for the treatment of OSA from anatomical and physiological mechanisms involved.

Materials and methods: A literature review was performed from items taken from PubMed, ScienceDirect, Springer, LILACS and PEDro databases, published between 2005 and 2015 in English.

Results: OSA is an intermittent and repetitive obstruction of the upper airway during sleep, caused mainly by an imbalance in respiratory muscle synergy. For treatment, the scientific literature has recently described methods such as oral devices, oral and nasal pressure therapies, Pillar, the Night Shift, bariatric surgery and stimulation of the hypoglossal nerve.

Conclusions: Although a fully effective treatment is not yet available, a combination of strategies from an interdisciplinary perspective can enhance the quality of life of patients. It is expected that in the coming years, the scientific and technological advances will allow for the implementation of a treatment protocol that is able to directly address the etiological processes to reduce their prevalence.

© 2016 Sociedad Colombiana de Anestesiología y Reanimación. Published by Elsevier España, S.L.U. All rights reserved.

[☆] Please cite this article as: Cortés-Reyes E, Parrado-Bermúdez K, Escobar-Córdoba F. Nuevas Perspectivas en el Tratamiento del Síndrome de Apnea-Hipopnea Obstructiva del Sueño. Rev Colomb Anestesiolog. 2016. <http://dx.doi.org/10.1016/j.rca.2016.06.004>

* Corresponding author at: Cr. 22 No. 45 B 38 Cons. 611, Bogotá, Colombia.

E-mail address: ecortesr@unal.edu.co (E. Cortés-Reyes).

Nuevas Perspectivas en el Tratamiento del Síndrome de Apnea-Hipopnea Obstruktiva del Sueño

RESUMEN

Palabras clave:

Síndromes de la apnea del sueño
Obesidad
Comorbilidad
Terapéutica
Obstrucción de las vías aéreas

Introducción: El Síndrome de apnea-hipopnea obstructiva del sueño (SAHOS) es un trastorno cada vez más prevalente en la población, que compromete seriamente la calidad de vida de quienes lo padecen. Aunque la presión positiva continua en la vía aérea es la modalidad terapéutica más utilizada, su poca adherencia y relativa insuficiencia han promovido diferentes investigaciones para desarrollar nuevas alternativas de tratamiento.

Objetivo: Revisar las estrategias más recientes e innovadoras que la evidencia científica propone para el tratamiento del SAHOS con base en sus mecanismos anatómicos y fisiológicos. **Materiales y métodos:** Se realizó una revisión bibliográfica a partir de artículos en idioma inglés, tomados de las bases de datos PubMed, ScienceDirect, Springer, LILACS y PEDro, publicados entre 2005 y 2015.

Resultados: El SAHOS es la oclusión intermitente y repetitiva de la vía aérea superior durante el sueño, causada principalmente por desbalance en la sinergia muscular respiratoria. Para su tratamiento, recientemente se han descrito modalidades como los dispositivos orales, las terapias de presión, el Pillar, el Night Shift, la cirugía bariátrica y la estimulación del nervio hipogloso.

Conclusiones: Aunque aún no se cuenta con un tratamiento totalmente eficaz, la combinación de estrategias desde una perspectiva interdisciplinaria puede mejorar la calidad de vida de estos pacientes. Se espera que durante los próximos años, los avances en ciencia y tecnología permitan implementar el protocolo de tratamiento que logre abordar directamente los procesos etiológicos de la enfermedad para poder reducir su prevalencia.

© 2016 Sociedad Colombiana de Anestesiología y Reanimación. Publicado por Elsevier España, S.L.U. Todos los derechos reservados.

Introduction

Obstructive Sleep Apnea-Hypopnea Syndrome (OSA) has been a relevant problem since the end of the 20th century in Colombia due to the rapid increase in its prevalence, both in the adult and pediatric populations.^{1,2} The clinical manifestations typical of this condition, and the multiple comorbidities that tend to appear in the long term, mean that the quality of life of patients with OSA may be affected considerably and it may even cause death.^{3,4}

Diverse therapeutic alternatives have been employed that, while mitigating the symptoms and the multi-systemic alterations deriving from OSA, do not offer definitive solutions for eliminating its causes. Many of these treatments experience low adherence by the patients or lead to adverse effects in the long and/or short term.⁵⁻⁷ Such limitations have motivated more exhaustive studies about the pathogenesis of OSA in order to develop new treatment options from different intervention standpoints.

Objective

To present the most effective, recent and innovative strategies that scientific evidence proposes for the treatment of OSA based on the anatomical and physiological mechanisms involved.

Materials and methods

To carry out this review, information was collected by way of article searches in the databases PubMed, ScienceDirect, Springer, LILACS and PEDro, using the MeSH terms: sleep apnea, obstructive; airway obstruction; obesity; sleep apnea and death; cardiovascular diseases; cognitive disorders; mental disorders; kidney diseases; endocrine system disease; metabolic syndrome X; comorbidity; therapeutics; continuous positive airway pressure; mandibular advancement; hypoglossal nerve and electric stimulation. Meta-analyses, systematic reviews, clinical trials, cohort studies, and review articles published between 2005 and 2015 in English were taken into consideration. Meta-analyses and review articles with fewer than 10 primary sources; clinical trials and cohort studies with sample sizes under 10; and publications for which full online access was not available online were all excluded.

Results

With the search strategy outlined above, initially 311 articles were found. This number was limited to 276 after language was taken into account. Later, the number dropped to 128 with the restriction to meta-analyses, systematic reviews, clinical trials, and review articles. Finally, 40 full text online texts remained that complied with the criteria regarding the number of references mentioned above. We present the

Download English Version:

<https://daneshyari.com/en/article/8616291>

Download Persian Version:

<https://daneshyari.com/article/8616291>

[Daneshyari.com](https://daneshyari.com)