



REVIEW ARTICLE

**Drug-induced sleep endoscopy in the identification of obstruction sites in patients with obstructive sleep apnea: a systematic review**<sup>☆,☆☆</sup>



Alonço da Cunha Viana Jr. <sup>a,b,\*</sup>, Luiz Claudio Santos Thuler <sup>c,d,e</sup>,  
Maria Helena de Araújo-Melo <sup>a,f</sup>

<sup>a</sup> Post-Graduate Program in Neurology, Universidade Federal do Estado do Rio de Janeiro (UNIRIO), Rio de Janeiro, RJ, Brazil

<sup>b</sup> Hospital Naval Marcílio Dias (HNMD), Rio de Janeiro, RJ, Brazil

<sup>c</sup> Infectious and Parasitic Diseases, Universidade Federal do Rio de Janeiro (UFRJ), Rio de Janeiro, RJ, Brazil

<sup>d</sup> Clinical Research and Technology Incorporation, Instituto Nacional de Câncer (INCA), Rio de Janeiro, RJ, Brazil

<sup>e</sup> Universidade Federal do Estado do Rio de Janeiro (UNIRIO), Rio de Janeiro, RJ, Brazil

<sup>f</sup> Clinical Research in Infectious Diseases, Fundação Oswaldo Cruz (FIOCRUZ), Rio de Janeiro, RJ, Brazil

Received 5 March 2014; accepted 11 January 2015

Available online 9 June 2015

**KEYWORDS**

Obstructive sleep apnea;  
Sleep disorders;  
Sleep;  
Sleep medicine specialty;  
Snoring;  
Endoscopy

**Abstract**

*Introduction:* Obstructive sleep apnea syndrome has multifactorial causes. Although indications for surgery are evaluated by well-known diagnostic tests in the awake state, these do not always correlate with satisfactory surgical results.

*Objective:* To undertake a systematic review on endoscopy during sleep, as one element of the diagnosis routine, aiming to identify upper airway obstruction sites in adult patients with OSAS.

*Methods:* By means of electronic databases, a systematic review was performed of studies using drug-induced sleep endoscopy to identify obstruction sites in patients with OSAS.

*Results:* Ten articles were selected that demonstrated the importance of identifying multilevel obstruction, especially in relation to retrolingual and laryngeal collapse in OSAS.

*Conclusion:* DISE is an additional method to reveal obstruction sites that have not been detected in awake patients.

© 2015 Associação Brasileira de Otorrinolaringologia e Cirurgia Cérvico-Facial. Published by Elsevier Editora Ltda. All rights reserved.

<sup>☆</sup> Please cite this article as: Viana Jr. AC, Thuler LCS, Araújo-Melo MH. Drug-induced sleep endoscopy in the identification of obstruction sites in patients with obstructive sleep apnea. Braz J Otorhinolaryngol. 2015;81:439–46.

<sup>☆☆</sup> Institution: Universidade Federal do Estado do Rio de Janeiro (UNIRIO), Rio de Janeiro, RJ, Brazil.

\* Corresponding author at: Rua Senador Dantas, 20/708, Centro, 20031-204, Rio de Janeiro, RJ.

E-mail: [aloncovianajr@gmail.com](mailto:aloncovianajr@gmail.com) (A.C. Viana Jr).

**PALAVRAS-CHAVE**

Apneia do sono tipo obstrutiva;  
Transtornos do sono;  
Endoscopia;  
Medicina do sono;  
Sono;  
Ronco

## Endoscopia do sono induzido por droga na identificação do(s) sítio(s) de obstrução em pacientes com apneia obstrutiva do sono: revisão sistemática

**Resumo**

**Introdução:** A síndrome de apneia obstrutiva do sono (SAOS) apresenta causas multifatoriais com indicação cirúrgica avaliada por meio dos exames diagnósticos consagrados em vigília, que podem, porém, não assegurar resultados cirúrgicos satisfatórios.

**Objetivo:** Realizar uma revisão sistemática sobre a endoscopia do sono, como parte da rotina diagnóstica, em pacientes adultos com SAOS a fim de identificar os sítios de obstrução da via aérea superior.

**Método:** Revisão sistemática da literatura (RSL), a partir de bases de dados eletrônicas, dos estudos que identificaram os sítios de obstrução em pacientes com SAOS a partir da endoscopia do sono induzido por droga (DISE).

**Resultados:** Foram selecionados dez artigos que demonstraram relevância na identificação dos multiníveis de obstrução, principalmente em relação ao colapso retro-lingual e laringeo na SAOS.

**Conclusão:** DISE é um método adicional na identificação de sítios de obstrução não detectáveis no paciente em vigília.

© 2015 Associação Brasileira de Otorrinolaringologia e Cirurgia Cérvico-Facial. Publicado por Elsevier Editora Ltda. Todos os direitos reservados.

**Introduction**

Obstructive sleep apnea syndrome (OSAS) is characterized by periods of cessation (apnea) and reduction (hypopnea) of oronasal airflow during sleep accompanied by oxyhemoglobin desaturation. This breathing disorder is a result of abnormal anatomy superimposed on physiological or excessive reduction of muscle tone during sleep.<sup>1,2</sup>

It affects approximately 2% of females and 4% of males, with a peak incidence between 40 and 60 years of age in both sexes. It has high rates of morbidity and mortality, and is considered a public health problem due to cardiovascular outcome, the risk of occupational and automobile accidents, as well as the poor quality of life, with neurocognitive impairment.

Clinical symptoms are snoring, restless sleep, daytime fatigue, decreased intellectual capacity, and personality changes. Between 80% and 90% of individuals with OSAS are unaware of their diagnosis, which can be attained more accurately and effectively with the identification and individualized analysis of obstruction sites.<sup>3-6</sup>

The disease has multifactorial causes, and patients with OSAS who receive recommendations for surgical intervention, by reputable diagnostic tests such as clinical examination, video examinations (nasal endoscopy, laryngoscopy, nasofibrolaryngoscopy), cephalometry, computed tomography, and magnetic resonance imaging, do not necessarily obtain a satisfactory and definitive result from surgery. Nasofibrolaryngoscopy (NFL) under sedation, also known as drug-induced sleep endoscopy (DISE), may be an important tool in locating the obstruction site in these patients, and thus allowing the best clinical and/or surgical approach, thereby improving the qualitative and quantitative results of treatment. Moreover, it could help prevent unrealistic expectations regarding the available treatment for each patient.

Therefore, the objective of this study was to perform a systematic literature review (SLR) on sleep endoscopy as a diagnostic tool in adult patients with OSAS, aiming to identify upper airway obstruction sites.

**Methods**

Between October 20th and 30th of 2013, articles indexed in the electronic databases of the Medical Literature Analysis and Retrieval System Online (MEDLINE), the Latin American and Caribbean Health Sciences Literature (LILACS), the Cochrane Central Register of Controlled Trials (CENTRAL), and the Spanish Bibliographic Index of Health Sciences (IBECs) were searched at the Regional Library of Medicine (BIREME). Additionally, a review of references from the selected articles was performed to identify other potentially relevant studies.

The descriptors used were: obstructive sleep apnea AND endoscopy AND sleep, obtained from the descriptors in health sciences (DeCS). Other searches were also performed, including the descriptors in English (MeSH terms: Sleep Apnea Syndromes, Sleep Disorders, Sleep Apnea, Obstructive, Endoscopy, Sleep) but it was observed that the above search repeated all the studies that were present in the first.

Studies that used the evaluation of upper airway obstruction sites in patients with OSAS as the outcome were selected, although some had other associated outcomes. The search was restricted to articles in adult humans, written in Portuguese, English, and Spanish, and performed by a researcher, based on the titles recovered from the databases, then abstracts, and finally full published articles.

These were evaluated independently. The selected articles were submitted to the procedures specified by STROBE (Strengthening the Reporting of Observational Studies in

Download English Version:

<https://daneshyari.com/en/article/4106313>

Download Persian Version:

<https://daneshyari.com/article/4106313>

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