

Re-Redefining Success in Airway Surgery for Obstructive Sleep Apnea

Michael Friedman, MD, FACS^{1,2}; Meghan Wilson, MD²

¹Rush University Medical Center, Chicago, IL; ²Advocate Illinois Masonic Medical Center, Chicago, IL

WE READ THE ARTICLE ENTITLED REDEFINING SUCCESS IN AIRWAY SURGERY FOR OBSTRUCTIVE SLEEP APNEA: A META ANALYSIS AND SYNTHESIS OF THE Evidence.¹ We congratulate the authors on an outstanding scientific work. Nevertheless, we feel very strongly that the work is based on one major error that will have a negative effect on millions of people suffering from obstructive sleep apnea/hypopnea syndrome.

The entire premise of the paper is based on the misconception that surgical therapy is used to replace CPAP therapy and therefore should be measured up against it. The authors fail to recognize the general consensus that surgical intervention for patients with sleep apnea is reserved only for those who cannot or will not accept CPAP therapy. The goal of surgery is therefore, not cure of a condition which is obviously incurable, but control of symptoms and minimizing ongoing multisystem damage.

The second misconception of this paper is that UPPP as an isolated procedure is the standard surgical treatment for OSAHS. Recently our study entitled "The Efficacy of Multilevel Surgery of The Upper Airway in Adults with Obstructive Sleep Apnea-Hypopnea Syndrome" was published in *The Laryngoscope*.² In this study, we reviewed all papers published in the English language that describe multilevel surgery of the upper airway. It is very rare that surgeons now treat obstructive sleep apnea with uvulopalatopharyngoplasty alone. The vast majority of surgeons involved in treatment of obstructive sleep apnea have recognized the failure of uvulopalatopharyngoplasty as an isolated procedure, and therefore multilevel surgery is the standard. We reviewed 49 multilevel surgery articles published. This included 1,978 patients. A meta-analysis was performed to redefine the success rate based on the criteria of an improvement and not a cure of sleep apnea. The success rate was defined as reduction of AHI score by 50% or more and AHI of less than 20. Success by this definition implies improvement and not cure. The success rate in these 1,978 patients was 66.4%. The majority of authors considered surgery only for those patients who failed CPAP. In 81% of the patients reviewed, this was clearly stated as an inclusion criterion. In 19% of the patients reviewed, the articles did not record that CPAP failure was an indication, but this was implied. A few of the papers clearly did not use CPAP only because they were comparing a surgical technique to CPAP as a primary treatment. In spite of those few papers that used surgery as a possible option, the vast majority clearly were using surgery as a salvage procedure when CPAP had failed.

Submitted for publication May, 2007

Accepted for publication October, 2008

Address correspondence to: Michael Friedman, MD, FACS, Head and Neck and Cosmetic Surgery Associates, 30 N. Michigan Ave., Ste 1107, Chicago, IL 60602; Tel: (312) 236-3642; Fax: (312) 236-5162; E-mail: hednnek@aol.com

It is also well known that a significant percentage of patients suffering from mild, moderate, and even severe sleep apnea do not receive any therapy at all. Therefore, their treatment success rate is zero. It is the responsibility of the medical community to be honest and realistic with these patients. Patients need to be informed that there are treatment options that will not cure their disease but are likely to improve both their symptoms and the severity of their disease. It is very common that sleep physicians tell patients that they have two options: CPAP or nothing. This is completely untrue, and studies that support this type of attitude should be approached with extreme caution.

The definition of success presented in the Elshaug article is based in an ideal world where complete eradication of the disease is the goal. Although this is certainly a very worthy goal, it is not always practical. Do we deny cancer treatment to every patient if the treatment does not result in 100% success? Do we deny treatment for sinus disease when success is not complete elimination of symptoms? Do diabetics receiving insulin achieve 100% return to normal? Should asthma and chronic obstructive pulmonary disease patients be denied treatment if their pulmonary function does not return to completely normal?

We think that there seems to be a significant miscommunication between the proponents of salvage treatment for patients with sleep apnea and the sleep community. Studies that berate the improvement achieved by surgery of the upper airway help insurance companies deny treatment to patients. We must realize that surgical intervention is the last resort that offers variable amounts of palliation and improvement of a patient's condition. Surgery is not offered to patients with a promise of complete elimination of the disease. We strongly feel that this study should be redesigned to look at improvement. Unfortunately, we are lacking in scientific data to determine how improvement in obstructive sleep apnea impacts patients. The focus should be on these types of studies rather than studies designed to prevent patients from seeking help from debilitating diseases.

DISCLOSURE STATEMENT

The authors have indicated no financial conflicts of interest.

REFERENCES

1. Elshaug AG, Moss JR, Southcott AM, Hiller JE. Redefining success in airway surgery for obstructive sleep apnea: a meta analysis and synthesis of the evidence. *Sleep* 2007;30:461-7.
2. Lin HC, Friedman M, Chang HW, Gurpinar B. The efficacy of multilevel surgery of the upper airway in adults with obstructive sleep apnea-hypopnea syndrome. *Laryngoscope* 2008;118:902-8.