

Five-Year Subjective Outcomes of Obstructive Sleep Apnea Surgery: A Multiinstitutional Study.

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Abstract

OBJECTIVES:

To evaluate the effect of obstructive sleep apnea (OSA) surgery on long-term (5-year) subjective outcomes, including sleep disordered breathing (SDB) symptoms and other complications, in patients with OSA.

METHODS:

We enrolled patients who underwent diagnostic polysomnography for OSA between January 2006 and December 2006 in ten hospitals. Patients either were treated for OSA or were not treated for OSA. All patients completed a brief telephone survey regarding their SDB signs and symptoms (e.g., snoring, apnea, nocturnal arousals, and daytime sleepiness), positive airway pressure (PAP) compliance, and any adverse effects of either the surgery or PAP. A positive subjective outcome for either surgery or no treatment was taken to be the alleviation of apnea, defined as a $\geq 50\%$ increase in score. A positive subjective outcome (compliance) for PAP was defined as a PAP usage of ≥ 4 hours per night and ≥ 5 days per week.

RESULTS:

A total of 229 patients were included in this study. Patients were divided into three groups: a surgery group (n=87), a PAP group (n=68), and a control (untreated) group (n=74). The surgery group exhibited significant improvement in all SDB symptoms compared with the control group. The long-term subjective outcomes of the surgery (52.9%) and PAP (54.4%) groups were significantly better than those of the control group (25.0%). The subjective outcome of the surgery group was not

significantly different from that of the PAP group. The overall surgical complication rate was 23.0% (20 of 87) in the surgery group, and 55.0% (22 of 40) of all patients with PAP experienced adverse effects.

CONCLUSION:

The extent of SDB symptoms was consistently improved in patients with OSA at 5 years postsurgery. Information about the potential long-term subjective outcomes should be provided to patients when considering surgery.

KEYWORDS:

Obstructive Sleep Apnea; Signs and Symptoms; Surgery; Treatment Outcome

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Long term quality of life outcomes following treatment for adult obstructive sleep apnoea: Comparison of upper airway surgery, continuous positive airway pressure and mandibular advancement splints.

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Abstract

OBJECTIVE:

Long term quality of life (QOL) outcomes, complications and clinical effectiveness in patients undergoing treatment with upper airway surgery (UAS), continuous positive airway pressure (CPAP) and mandibular advancement splints (MAS) for adult obstructive sleep apnoea (OSA).

DESIGN:

Retrospective cohort study.

SETTING:

Multi-disciplinary OSA clinic in University teaching hospital.

PARTICIPANTS:

Consecutive, simultaneously treated patients with OSA undergoing UAS (n= 83), CPAP (n=83), MAS (n=79).

MAIN OUTCOME MEASURES:

Glasgow Benefit Inventory (GBI), Snoring Severity Scale (SSS), Epworth Sleepiness Score (ESS) and side effects in all three groups were recorded at a mean of 34.5 months following start of treatment and compared via ANOVA analysis with Bonferroni adjustment for pair-wise comparisons.

RESULTS:

UAS demonstrated a statistically significant QOL benefit over MAS. All three groups showed a significant improvement in SSS with CPAP significantly better than MAS, but equivalent to UAS. Uncomplicated UAS provided a greater QOL outcome than compliant MAS, non-compliant CPAP ($p<0.05$) and comparable to compliant CPAP. Patients undergoing UAS with recorded complications still reported equivalent QOL outcomes to compliant CPAP and MAS, suggesting these surgical complications are relatively minor compared to the QOL benefit of OSA treatment.

CONCLUSION:

UAS showed a significant improvement in QOL outcomes compared to non-compliant CPAP or MAS and equivalent benefit to compliant CPAP. This study strongly supports the role for contemporary UAS in OSA when CPAP is not or no longer an option. This article is protected by copyright. All rights reserved.

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KEYWORDS:

CPAP ; Obstructive sleep apnea; mandibular advancement splints; quality of life; sleep study; upper airway sleep surgery

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