ABSTRACT

The obstructive sleep apnea (OSA) syndrome is a condition that interferes with quality of life (QOL). The aim of this study was to assess the QOL by the SF-36 questionnaire in patients with OSA before and after Uvulopalatopharyngoplasty (UPPP).

MATERIALS AND METHODS: This study is a case series of 11 adult patients diagnosed with mild, moderate or severe OSA, all of them underwent UPPP. Statistical analysis was performed by the Wilcoxon test.

RESULTS: Out of 11 patients included in the study, 91% had moderate to severe OSA. All patients in this study had some degree of improvement in their quality of life in the overall assessment. No patient presented worsening in any domain. Findings of this study show the impairment in quality of life in patients with obstructive sleep apnea. Our study further supports the lack of association between AHI and QOL.

CONCLUSIONS: The quality of life questionnaires may be relevant in assessing the therapeutic outcome for OSA.

KEYWORDS: Quality of Life, Obstructive Sleep Apnea, Uvulopalatopharyngoplasty.

INTRODUCTION

The quality of life of the man living in the 21st century depends mostly on socioeconomic, cultural and health factors. Besides affecting the state of mind, this quality of life can be compromised significantly by a number of diseases. The obstructive sleep apnea (OSA) syndrome is a condition that interferes with quality of life, with prevalence estimated 2-9% in men and 1-4% in women. However, most current studies indicate that prevalence of OSA may be much higher, reaching 33% of the population in Sao Paulo.

The uvulopalatopharyngoplasty (UPPP), described by Fujita (1981) and modified by several authors, is one of the most practiced surgeries to treat OSA until the present day. However, there are few studies in the literature linking the surgical treatment of OSA with quality of life.

Among various questionnaires to assess quality of life (QOL), one of the most used is the Short Form (SF)-36 Health Survey. This questionnaire is also administered in studies assessing the QOL in sleep apnea.

The aim of this study is to assess the quality of life by the SF-36 questionnaire in patients diagnosed with OSA before and after 60 days of performing UPPP.

MATERIALS AND METHODS

This study is a case series of 11 adult patients (10 men and 1 woman) between 27 and 67 years old, diagnosed with mild, moderate or severe OSA syndrome. This diagnosis was made by clinical history and polysomnography (PSG). All of them underwent UPPP at our institution, with treatments by Brazilian public health system.

The study was approved by the ethics committee and all patients with indication for UPPP from March to September 2012 were invited to take part in this protocol. They signed a consent form and answered the SF-36 before and at least 90 days after surgery.

Data from clinical history, Epworth sleepiness scale (ESS), physical examination, PSG and SF-36 were collected and analyzed. Statistical analysis was performed by the Wilcoxon test and the program Stata version 10.

RESULTS

The main data regarding the clinical and PSG characteristics of patients and are summarized in Table 1. All patients showed improvement in the overall assessment of QOL by SF-36 after UPPP (Graph 1).

Of the 11 patients of this study, 1 (9.1%) had mild apnea, 3 (27.3%) had moderate apnea and 7 (63.6%) had severe apnea.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Before UPPP</th>
<th>After UPPP</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall assessment of quality of life</td>
<td>99.0 (80-113)</td>
<td>122.0 (107-134)</td>
<td>0.0033</td>
</tr>
<tr>
<td>Physical Functioning</td>
<td>80.0 (65-95)</td>
<td>90.0 (65-100)</td>
<td>0.0162</td>
</tr>
<tr>
<td>Role limitations due to physical health</td>
<td>50.0 (100)</td>
<td>100.0 (25-100)</td>
<td>0.0070</td>
</tr>
<tr>
<td>Pain</td>
<td>40.0 (30-100)</td>
<td>100.0 (80-100)</td>
<td>0.0102</td>
</tr>
<tr>
<td>General health</td>
<td>35.0 (5-65)</td>
<td>80.0 (55-90)</td>
<td>0.0111</td>
</tr>
<tr>
<td>Energy/fatigue</td>
<td>40.0 (25-70)</td>
<td>55.0 (40-85)</td>
<td>0.1406</td>
</tr>
<tr>
<td>Social functioning</td>
<td>62.5 (50-100)</td>
<td>100.0 (50-100)</td>
<td>0.0272</td>
</tr>
<tr>
<td>Emotional well-being</td>
<td>33.3 (0-100)</td>
<td>100.0 (66.6-100)</td>
<td>0.0268</td>
</tr>
<tr>
<td>Role limitation due to emotional problems</td>
<td>40.0 (32-52)</td>
<td>56.0 (40-64)</td>
<td>0.0162</td>
</tr>
</tbody>
</table>

Graph 1: Improvement in the overall assessment of quality of life, according to the SF-36 in 11 sample patients.

DISCUSSION

Although the gold standard treatment for severe OSA syndrome is continuous positive airway pressure (CPAP), it does not always result in subjective benefit to the patient, who often does not tolerate the treatment, or the requirements and obstacles to sleep with a stigmatizing machine. The CPAP adherence rates are low in the long term and, in addition, there is the cost of renting/buying the CPAP. Unfortunately, in Brazilian public health system there is not a program to deliver CPAP.

A meta-analysis conducted by Jing et al., using SF-36, selected 20 recent studies about the effects of CPAP on the QOL of patients with OSA. They concluded that CPAP does not improve general QOL scores but does improve physical domains and vitality.

Many studies in the literature only consider as surgical success the reduction of AHI> 50% and AHI <15 or 20 /h. Only a small number of studies give attention to the QOL as an outcome of OSA surgical treatment. Although there are several questionnaires to assess quality of life, the most used in these cases are the SF-36 and the Functional Outcomes of Sleep Questionnaire (FOSQ).

Kozirgi et al. used the FOSQ to evaluate patients undergoing multilevel surgery for treatment of OSA. Thirty patients were evaluated and divided into two groups, one with a positive response to surgical treatment by PSG criteria and another group with no response. Both groups demonstrated improvements in sleep-related quality of life.

Regarding palatal treatments, Li et al. (2004) also described an improvement of QOL in 55 patients attending uvulopalatal flap surgery for OSA.

In 2008 Li et al. evaluated the impact of nasal surgery alone on QOL in 51 patients with OSA and nasal obstruction. Remarkable improvements were observed in generic SF-36 role-emotional and role-physical QOL subscales.

All patients in our study had some degree of improvement in their QOL in the overall assessment. No patient presented worsening in any domain.

However, our study has some limitations. Patients who were stable in their responses in some subscales of SF-36 could present comorbidities which were not evaluated, such as depression, anxiety and insomnia. Furthermore, our sample was small, included patients with different degrees of OSA syndrome and some of them did not have the best anatomical pattern for surgery. In some cases, patients underwent surgical treatment because of their low socioeconomic conditions for the CPAP therapy or not being able to tolerate it. All these factors may have affected the results.

Our next step will be to expand our sample and correlate the results of SF-36 with clinical and polysomnographic findings after surgery.

CONCLUSIONS

After UPPP all patients showed some degree of improvement in their QOL, in all domains of the SF-36. Only the domain vitality showed no statistically significant improvement.

Thus, in addition to clinical and polysomnographic analysis, the QOL questionnaires may be relevant in assessing the therapeutic outcome for OSA.

REFERENCES