

Quality of Life in Obstructive Sleep Apnoea: A Role for Oxygen Desaturation Indices?

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Abstract

Introduction: This study aimed to determine the impact of obstructive sleep apnoea (OSA) on quality of life (QOL) and evaluate the utility of polysomnographic parameters in reflecting QOL. **Materials and Methods:** Eighty-eight patients who underwent polysomnography (PSG) between December 2010 and November 2012 consecutively were recruited and they completed the 36-Item Short-Form Health Survey (SF-36) and Epworth Sleepiness Scale (ESS) questionnaires. Based on the apnoea-hypopnoea index (AHI), patients were classified as primary snorers (AHI <5), suffering from mild ($5 \leq 15$), moderate ($15 \leq 30$) or severe OSA (≥ 30). **Results:** Seventy-nine male and 9 female patients with a mean age of 41 years were recruited. OSA patients scored significantly lower on 7 domains of SF-36 compared to the population. As AHI increased, only Physical Function (PF) and Physical Component Summary (PCS) but not ESS scores significantly worsened. PSG parameters correlated poorly with all QOL measures except PF, PCS and ESS. After adjusting for age, sex and body mass index (BMI), multiple linear regression revealed that only the oxygen desaturation parameters, but not sleep architecture indices or AHI were significant predictors of PF and ESS. For every fall in the lowest oxygen saturation (LSAT) by 1%, there was a decrease in PF by 0.59 points, and an increase in ESS by 0.13 points. **Conclusion:** OSA patients have a poor QOL compared to the population. The amount of physical impairment and daytime sleepiness they experience is better predicted by severity and duration of hypoxia and not AHI.

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