

THE INFLUENCE OF OBESITY ON SLEEP QUALITY IN MALE SLEEP APNEA PATIENTS BEFORE AND DURING THERAPY

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Introduction: Evidence exists that obesity even in the absence of sleep related respiratory disorders affects negatively sleep. In this study we examined the influence of the obesity on sleep quality of male sleep apnea patients before and after breathing normalization with continuous positive airway pressure (CPAP). **Material and methods:** We compared the polysomnography from the diagnostic night, the second night with CPAP, and the control night (three months later) in 13 non-obese, 13 obese and 12 severely obese male OSAS patients. The groups were age-matched. **Results:** In the diagnostic polysomnography, the obese and severely obese showed increases in apnea hypopnea index (AHI) and NREM sleep and decreases in min SaO₂, REM sleep and partially slow wave sleep, compared with the nonobese group. In the second CPAP night, normalization of the AHI and a rebound of REM and SWS occurred, which was markedly more pronounced in the severely obese than in the nonobese and obese groups. The min SaO₂ was lower in the obese and severely obese groups. The polysomnography recorded three months thereafter revealed no differences in the AHI and in the sleep stages among the groups. The min SaO₂ in the obese was still lower than in the nonobese. **Conclusions:** After the long term CPAP therapy, no effect of obesity on the sleep quality was found. In the second night with CPAP, severe obesity was associated with greater rebound of SWS and REM sleep. The persistence of decreased min SaO₂ in the obese and severely obese groups under CPAP therapy suggests the concomitant obesity hypoventilation in these patients.