Abstract Group: 4.2. Sleep and Control of Breathing
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Title: Correlation between sleep parameters, physical activity and quality of life in somnolent moderate to severe obstructive sleep apnea adult patients

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Body: Purpose Several symptoms are described in obstructive sleep apnea (OSA), including excessive daytime sleepiness, depressive mood and neurocognitive dysfunction. However, few studies examined the relationship between objective physical activity, quality of life and sleep parameters. The purpose of this study was to determine sleep parameters (evaluated by actigraphy and polysomnography), implied in the occurrence of impaired physical activity and reduced quality of life in somnolent moderate to severe OSA patients. Methods We reviewed retrospectively data of 75 somnolent moderate to severe (Apnea-Hypopnea Index>20) OSA patients. Data of 5- days actigraphy and polysomnography were analysed. They all completed the Nottingham Health Profile questionnaire (NHP). Sleep parameters associated with physical activity and quality of life were assessed. Results Patients were mainly obese (mean BMI 36), and males (53%). Controlling for age and BMI, physical activity, expressed as number of steps walked/day, is associated with OSA severity in REM sleep (p= 0,05). Regarding quality of life, “sleep”, “energy” and “emotional reactions” scored highest; and patients evaluated correctly their activity impairment through the “mobility” item of NHP questionnaire. Conclusions Low level of physical activity is associated with increasing OSA severity in somnolent moderate to severe OSA patients but is not linked to subjective somnolence. These patients describe concomitantly a severely impaired quality of life in several domains, and the negative perception in the “mobility” domain is effectively related to an objective low level of physical activity.