SLEEP ARCHITECTURE AND METABOLIC FACTORS IN OBSTRUCTIVE SLEEP APNEA.

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The quality, quantity and timing of sleep are investigated as causal links to glucose disturbances and metabolic syndrome. Obstructive sleep apnea (OSA) is described by various disturbances, including repeated apnea/hypopnea episodes, cyclical alteration of blood oxygen saturation, and coexistence of cardiovascular risk factors. Polysomnography is obligatory to diagnosed the severity of the disease using apnea/hypopnea index (AHI) and makes chance to analyze the architecture of patient’s sleep.

The aim of the study was to assess glucose and lipid metabolism according to the sleep architecture of OSA patients.

The study included 88 subjects, aged 34-70, with no acute and chronic diseases. Clinical examination and full-night polysomnography were performed. AHI was used to categorize subjects: OSA-0 (n=22), mild OSA-1 (n=22), moderate OSA-2(n=22), severe OSA-3(n=22). The analysis of sleep architecture included non-rapid eye movement (NREM1,2,3), rapid eye movement (REM) and wake (W) stages. Glucose metabolism was verified using oral glucose tolerance test. T-C, LDL-C, HDL-C, TAG, non-HDL-C, and insulin were measured fasting. Insulin sensitivity indices were calculated. Different comparisons and correlations were performed using Statistica 13.0 program.