

OBESITY AND SLEEP DURATION – INVESTIGATION OF DISORDERS OF GLYCOREGULATION AND SYSTEMIC INFLAMMATION

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Sleep quality and sleep duration are significantly associated with obesity onset and its progression. A prospective clinical study was conducted by analyzing 129 patients referred to polysomnography, out of whom 76 were obese. According to modified sleep quality survey ("National Health and Nutrition Examination Survey" - NHANES), patients were divided into two groups based on similar demographic and morphometric characteristics of sleep duration, so the group I comprised subjects with poor sleep quality, sleeping 4 hours or less on average, and group II enrolled subjects with moderate and good sleep quality, with 6 hours or more of sleep duration on average. It has been reported that all the subjects had elevated levels of C-reactive protein (CRP), and the subjects from group I with shorter sleep duration and poor sleep quality had statistically significant rise of CRP in comparison to the subjects from group II. It has also been proved that the subjects from both groups had elevated levels of glycated hemoglobin (HbA1c) as a parameter of poor glycoregulation. In obese persons, sleep duration and quality play a significant role in increasing inflammatory processes in the body. Obesity is a risk factor of impaired glycoregulation.

Acta Medica Medianae 2022;61(1):42-47.

Key words: respiratory polygraphy, obesity, sleep duration, glycoregulation, systemic inflammation