

THE DIFFERENT INFLUENCE OF GLYCEMIA DISTURBANCES ON OXIDATIVE STRESS PARAMETERS IN MILD AND MODERATE OBSTRUCTIVE SLEEP APNEA MALES.

Alicja Płóciniczak¹, Ewa Wysocka¹, Lena Bielawska¹, Grażyna Kasprzak¹, Hanna Winiarska²,
Szczepan Cofta²

alicjaplociniczak@ump.edu.pl

¹ Department of Laboratory Diagnostics, Poznan University of Medical Sciences; 84 Szmarzewskiego Str., 60-569 Poznań, Poland.

² Department of Pulmonology, Allergology and Pulmonary Oncology, Poznan University of Medical Sciences; 84 Szmarzewskiego Str., 60-569 Poznań, Poland.

Oxidative stress is proposed to be a linking mechanism between obstructive sleep apnea OSA cardiovascular disease and metabolic disorders The aim of this study was to assess the oxidative stress expressed by plasma total antioxidant status TAS and lipid peroxidation products and superoxide dismutase activity in erythrocyte in mild OSA- and moderate OSA- obstructive sleep apnea males according to patients' glycemia status p The study included men aged - divided into normoglycemic prediabetic and diabetic subgroups due to the oral glucose tolerance test results Clinical examination and full-night polysomnography were performed and the apnea-hypopnea index was used to determine the OSA severity p Increased TAS and SOD were found in the prediabetic subgroup Decreasing SOD was observed from normoglycemic through prediabetic to diabetic patients The highest lipid peroxidation products were found in diabetic males as compared with normoglycemic and prediabetic OSA- males and normoglycemic OSA- males Various correlations concerning oxidative stress markers were observed in OSA- and OSA- patients p The coexistence of obstructive sleep apnea and hyperglycemia may increase the accumulation of plasma lipid peroxidation products Only prediabetic men with mild obstructive sleep apnea who presented antioxidative mobilization could prevent an increase in the concentration of plasma lipid