

DOBOWA ZMIENNOŚĆ RYTMU ZATOKOWEGO SERCA JAKO WSKAŹNIK AKTYWNOŚCI AUTONOMICZNEGO UKŁADU NERWOWEGO U MĘŻCZYŹN Z ZESPOŁEM ZALEŻNOŚCI ALKOHOLOWEJ W OKRESIE ABSTYNENCJI

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DAILY SINUS HEART RATE VARIABILITY AS THE INDICATOR OF AUTONOMIC NEURAL SYSTEM ACTIVITY IN ALCOHOL DEPENDENT MALE PATIENTS DURING ABSTINENCE PERIOD

ABSTRACT – Heart rate variability (HRV) is a cardiovascular autonomic neural system activity indicator and its decrease is a good sudden cardiac death predictor. The aim of this study was to estimate the R-R intervals of sinus heart rhythm variability no later than 3 weeks after the alcohol consumption period end and after 4 weeks of controlled alcohol abstinence in alcohol dependent male patients. **PATIENTS AND METHODS:** In 34 alcohol dependent male patients and 14 males, who denied alcohol abuse, 24-hours ceg Holter monitoring with HRV analysis was performed twice, with four weeks interval period. **RESULTS:** In alcohol dependent patients, examined no later than 3 weeks after alcohol abuse period, the following findings were made: higher mean daily heart rate and lower values of the mean R-R interval duration (MRR), lower standard deviations for all 5 minutes segments of the analysis (SDNN_1) and lower frequency component of HRV spectrum (LF) than in control group. The percentage of differences between R-R intervals that are greater than 50ms (pNN50) in alcohol dependent males examined no later than 3 weeks after alcohol abuse period were lower than in control group with borderline statistical significance. In alcohol dependent males after 4 weeks of alcohol abstinence a significant increase of the standard deviations of all R-R intervals (SDNN) and pNN50 were observed. The standard deviation of the mean R-R intervals for all 5 minutes segments of the analysis (SDNN_1) and LF increased, but not significantly. Moreover, after 4 weeks of abstinence, the percentage of alcohol dependent patients with prognostic HRV changes decreased. **CONCLUSION:** After 4 weeks of abstinence in alcohol dependent males, increase of vagal nerve dependent heart rate regulation parameters values was found, which may indicate a decrease of cardiovascular complications risk in these patients.

Key words: heart rate variability, alcohol dependence, cardiac sudden death – risk factors.