

## **274. AUTONOMOUS CHANGES IN PATIENTS WITH BORDERLINE PERSONALITY DISORDER DURING THE HYPERVENTILATION TEST**

Author: **Doina Baxaneanu**

Scientific advisers: Victor Vovc, MD, PhD, University Professor, Lozovanu Svetlana, PhD, Associate professor, Department of Human Physiology and Biophysics, *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova.

**Introduction.** Borderline personality disorder (BPD) affect about 1-2% of the general population and is the most common personality disorder in clinical practice. Key features of this personality disorder are emotional lability and impulsivity that represent the impairment of inhibitory control, ability to inhibit and regulate emotional responses. Heart rate variability (HRV) - the variation in duration between consecutive heartbeats - is widely accepted as a psychophysiological marker of emotional regulatory capacity and inhibitory control. Parasympathetic modulation of heart rate is faster while sympathetic effects are much slower. **Aim of the study.** The purpose of the study is to determine the autonomous modifications in people with BPD by studying the variability of the heart rhythm both at rest and in hyperventilation.

**Materials and methods.** The study involved 95 people between the ages among 19 and 60 years old, using the PID-5 personality disorder questionnaire. All subjects were divided into 2 groups: control group (n = 64), group of people with borderline BPD personality disorder (n = 32). The experimental protocol included the recording using the Biopac MP-36 computer system, the electrocardiogram in the second standard lead in 3 functional samples: resting (R) - 5 minutes, hyperventilation (HV) - 3 minutes and post-hyperventilation (post-HV) 5 minutes. The primary data processing was performed with the program Kubios HRV Standard (version 3.2.0, 2019).

**Results.** As a result of studying HRV parameters in R probe, there were no significant statistic differences detected between the control group and BPD group. Similarly, in the studying of HV, except for the decrease of LF/HF ratio, as a sign of sympathetic and parasympathetic nervous system activation in the BPD group. The comparison of obtained data within the groups, denotes that the LF values in the BPD group are not higher than 20,6% ( $p < 0,01$ ), and HF values lower than 19,5%, compared to post HV probe in relation to R. It means that the BPD stimulates more sympathetic activity and reduces the parasympathetic one.

**Conclusions.** Vagus mediated heart rate variability is strongly associated with emotional regulation and is at the basis of individual differences in the perception of emotional stimuli. It predicts emotional instability in daily life and is inversely proportional to the difficulties in emotional regulation in people with BPD.

**Key words:** Heart rate variability, personality disorder, PID-5

## **275. THE RATE OF PERSONALITY DISORDES AT HEALTHY YOUNG PEOPLE**

Author: **Andrei Tîrbu**

Scientific advisers: Victor Vovc, MD, PhD, University Professor, Lozovanu Svetlana, PhD, Associate professor, Department of Human Physiology and Biophysics, *Nicolae Testemitanu* State University of Medicine and Pharmacy, Chisinau, Republic of Moldova.