

CHANGES OF ECG IN PHASE SPACE UNDER CONDITION OF EXPERIMENTAL MYOCARDIAL ISCHEMIA

I. Chaikovsky, L. Fainzilberg , A. Nescheret, A. Moibenko

Aim of this paper is investigation of ECG in phase space changes under condition of myocardial ischemia during experiments with entire organism.

Materials and methods: Regional ischemia was simulated in 13 dogs with the help of catheterization of coronary arteries and obturation of one of the left coronary artery branches by plastic embol. All experiments were done with closed chest and natural breathing. Duration of ischemia was 90 min. ECG in phase space was recorded every 10 min. Some parameters of ECG, first of all parameter β_T , reflecting symmetry of T -wave, as well as parameters of heart rate variability were evaluated with the help of program-technical complex **FASEGRAPH™**.

Results: Rapid and statistically significant increase of parameter β_T under influence of myocardial ischemia was observed. Increase of T -wave symmetry was the earliest and the most sensitive signs of ischemia among all parameters evaluated, including ST -segment dislocations.

Conclusion: Changes of T -wave symmetry are sensitive signs of myocardial ischemia, which can be used in clinical practice.