

Spectral analysis of heart rate variability (HRV) is one of the effective methods for diagnosis of cardiac disorders. However, the frequency bands of HRV are standardized only for human hearts. The paper presents the study focused on definition of frequency bands in isolated hearts of White New Zealand rabbits and on analysis of changes of these bands caused by myocardial ischemia. The results of this study are the frequency bands of HRV (LF - the low frequency band and HF - the high frequency band): LF=(0.03-0.86)Hz and HF=(0.86-1.91)Hz, LF=(0.03-0.51)Hz and HF=(0.51-1.41)Hz, LF=(0.03-0.54)Hz and HF=(0.54-1.87)Hz for the control, ischemic and reperfusion period respectively.