

The anthracyclines are antineoplastic drugs with cardio- and neurotoxicity. The aim of study was to determine the effect of anthracycline therapy on spontaneous fluctuation of circulatory variables. Systolic and diastolic blood pressures (SBP, DBP) and inter-beat intervals (IBI) were recorded for 5 minutes (Finapres, breathing at frequency of 0.33 Hz). Power spectra of SBP, DBP and IBI, low/high frequency ratio (LF/HF) and baroreflex sensitivity (BRS, BRSf) were calculated. We found a statistically significant decrease of SBP, DBP, BRS and BRSf in patients in comparison with controls, the changes of the power spectra of SBP, DBP, IBI and LF/HF were not different. We can conclude that anthracycline therapy has an effect on the function of the autonomic nervous system (ANS), but the spectral analysis is not sensitive enough to reveal the anthracycline-induced ANS impairment.