Abstract

The objective of this study was to evaluate the positive effect duration of pharmacologic management of premature ventricular contractions (PVC) according to ventricular ectopy analysis in the absence of structural heart disease.

Materials and methods. The current study included 214 patients aged 19–45 years without structural heart disease and with class IV –V PVC (Rayn B. classification (1984)). After 24-hour Holter monitoring, potentially effective antiarrhythmic agents for terminating PVC were selected. Antiarrhythmic drugs were taken for 5–7 days and a decrease in the number of extrasystoles by 75 % or more compared with baseline as well as the elimination of paired, group extrasystoles signified a positive effect. The extrasystole index (IE) and the corrected extrasystole index (IEcorr.) were calculated for all the patients before and after each administration of the drug, respectively. The follow-up duration ranged from 1 to 5 years. The endpoint was the duration of positive antiarrhythmic effect of the drugs used.

Results. In 20.10 % of patients the positive antiarrhythmic effect persisted for 0.7 Ѓ} 0.04 years, in 80.90 % — for 3.8 Ѓ} 0.08 years. In patients, in whom the positive effect lasted for up to 1 year, metoprolol, propranolol, sotalol were used more frequently, while class I drugs were not used at all. In patients without structural heart disease, the sensitivity, specificity, and positive prognostic value for antiarrhythmic therapy effects persistence for at least 1 year were 97, 03 %, 87.50 % and 96.08 %, respectively for a linear regression slope of ≥ 12 units/IEcorr.

Conclusion. In patients without structural heart disease with a linear regression slope of ≥ 12 units/IEcorr.1–10 the positive effect of antiarrhythmic therapy persists for 1 year or more.

Keywords. PVC, duration of the positive effect of therapy.