The aim of the study is to determine the prognostic significance of established and novel cardiovascular biomarkers (growth stimulation expressed gene 2 (ST2)) for assessing the risk of adverse cardiovascular events (ACVE) in patients with novel coronavirus infection (COVID-19) during long-term follow-up.

Methods. A non-randomized, prospective comparative study included 112 patients hospitalized with a confirmed diagnosis of COVID-19. In addition to standard laboratory tests, the levels of cardiovascular biomarkers (lactate dehydrogenase (LDH), high-sensitivity troponin I (hsTrI), high-sensitivity troponin T (hsTrT), creatine phosphokinase (CPK), creatine phosphokinase MB fraction (CPKMB), ST2) were determined on the day of hospital admission. Patients were followed for 366 [365; 380] days.

Results. During the follow-up period, 14 (12.5 %) patients developed ACVE, including 4 (3.6 %) deaths from cardiovascular causes. The group of patients with developed ACVE had higher admission BMI, IL-6, D-dimer, LDH, CPK, CPK-MB and ST2 concentrations (p<0.05 for all parameters).

Predictors of the development of ACVE were arterial hypertension (AH) (odds ratio (OR) 2.73, 95 % confidence interval (CI) 1.20–6.22, χ 2 =5.3, p=0.021), obesity (OR 2.13, 95 % CI 1.15–3.96; χ 2 =5.6, p=0.018), ST2 level > 36 ng/mL (OR 1.23, 95 % CI 1.11–1.37; AUC 0.949, sensitivity 92.9 %, specificity 33 %, p=0.000).

Conclusion. The ST2 level of >36 ng/mL on the day of hospitalization as well as the presence of AH and obesity increased the likelihood of developing ACVE within 1 year of discharge in patients who had a coronavirus infection.