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Risks of death from decompensation and cardiovascular causes in patients with chronic heart failure, depending on adherence to observation in a specialized center.

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Specialized centers for treatment chronic heart failure (center CHF) contribute to reducing the risk of death from decompensation of heart failure (DHF) and cardiovascular cases (CVC). The analysis of the work first in Russia center CHF is presented in this work.

Purpose: to determine the risks of death from CVC and DHF in patients with chronic heart failure (CHF) during two years of follow-up, depending on the adherence to observation of center CHF.

Methods: 942 patients with CHF of any etiology older than 18 years old who were discharged from the hospital after DHF were included to the study. For two years, the patient's adherence to observation in center CHF was investigated. 4 groups were created: group 1, n=313, observation at center CHF for two years, and group 2, n=382, were observed at the other clinics, group 3, n=197, only the first year at center CHF was observed, and group 4, n = 49, the 1st year was observed in the other clinics and the 2nd year in center CHF. Observation of a cardiologist at the center CHF at least 1 time in 3 months. In cases of refusal from supervision, the control was carried out by a nurse who did structured telephone calls 1 time in 3 months. For statistical processing, the program Statistica 7.0 was used.

Results: The mean age of patients in groups 1,3,4 did not differ significantly. Significant differences were found between groups 1 and 2 (69.6±9.9 and 71.8±11 years, p1/2<0.006). Patients with III-IV FC NYHA initially in groups 1, 2, 3, and 4 met in 51.4%, 58.9%, 40.4%, and 51% of cases respectively (p1/2=0.052, p1/3=0.02, p1/4=0.96, p2/3<0.001, p2/4=0.3, p3/4=0.2). Death from CVC for 2 years of follow-up was significantly higher in group 2 versus 1 (8.1% and 1.3% of cases, OR=6.8, 95% CI 2.4–19.5; p1/2<0.001), also in group 2 versus 3 (3%), OR=2.8, 95% CI 1.1–6.8; p2/3=0.02. When comparing groups 1 and 4 (6.1%), death from CVC was higher in group 4, OR=5.0, 95% CI 1.1–23.2; p1/4=0.02. When comparing other groups there are no significant differences (p1/3=0.2, p2/4=0.6, p3/4=0.3).

The risks of death from DHF over the 2 years of follow-up were significantly higher in group 2 (16.4%) compared with all groups: group 1 (6.4%), OR=2.9, 95% CI 1.7–4.9; p1/2<0.001; group 3 (5.1%), OR=3.7, 95% CI 1.8–7.3; p1/3<0.001; group 4 (2%), OR=9.5, 95% CI 1.3–69.7; p1/4=0.008. When comparing other groups, no significant differences were obtained (p1/3=0.5, p1/4=0.2, p3/4=0.4).

Conclusions: In groups 1, 2, and 4 baseline prevailed patients with severe CHF. The patients in group 3 were not committed to follow-up after 1 year but retained lower risks of death of CVC and DHF in comparison with patients who did not attend the center CHF. The highest risks of death from CVC and DHF were obtained in patients who were not observed in the center CHF after discharge from the hospital. Prolonged regular follow-up in specialized center CHF reduces the risk of death from CVC and DHF.

Conflict of interest: not declared.