Factors affecting rehospitalization in elderly patients with chronic heart failure

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Introduction: Heart failure (HF) is the leading reason for hospitalization with a high readmission rate among elderly people. The rate of rehospitalizations among elderly patients still remains high, despite of numerous achievements in available therapies.

Purpose: The aim of this work is the evaluation of the influence of sociodemographic and clinical factors as well as of self-care on the rehospitalization rate in elderly patients with chronic heart failure.

Materials and Methods: The study included 210 patients (mean age 71,7 ± 8,6 years): 96 women (45.7%) and 114 men (54.3%) with a diagnosis of chronic heart failure in the NYHA functional class I (5.7%), II (55.2%), III (36.7%), IV (2.4%). The accepted criterion of rehospitalization was 3 or more hospitalizations during one year. The patients were divided into two groups, according to the number of their hospitalizations, group I – rare hospitalizations (up to 2 per year), group II – frequent hospitalizations (3 or more). The considered factors affecting the frequency of hospitalizations included: age, gender, the NYHA functional class, the left ventricle ejection fraction (EF), comorbidities and the patients’ self-care evaluated basing on the European Heart Failure Self-Care Behaviour Scale (EHFScB Scale).

Results: The studied group of patients demonstrated the existence of statistically insignificant negative correlation (rS = -0.160) between the number of hospitalizations and the self-care scale (p > 0.05). In the analysis of univariate logistic regression, the significant factors affecting rehospitalization are: female gender (β = +0,561, p= 0,056), the NYHA functional class (β = +1,023, p<0,001) and the left ventricle ejection fraction EF (β = -0,026, p=0,097). The multivariate analysis showed that female gender and NYHA functional class were the only independent factors.

Conclusions: Female gender and the NYHA functional class prove to be independent predictors of frequent hospitalizations among elderly patients suffering from chronic heart failure.