

Abstract

Heart failure (HF) affects 1.2-4.2 % of adults and is the cause of one in nine deaths in the population. The prevalence of this disease increases, among other things, as a result of aging population. There is a high prevalence of malnutrition among patients with HF. Presence advanced malnutrition, i.e. cardiac cachexia, worsens the prognosis and the mortality rate for those affected is 20-30 %. Currently, no standardized protocol is available for examining nutritional status of patients with HF. In addition, fluid retention with edema is common with these patients, which distorts commonly used methods of assessing nutritional status.

The aim of the work: The aim of this work was to evaluate nutritional status of patients with heart failure using validated Mini Nutritional Assessment questionnaire, functional test grip strength, anthropometry and laboratory parameters.

Methodology: Observation study included 46 probands hospitalized at the I. Internal cardioangiological clinic of the Hradec Králové University Hospital. MNA nutritional questionnaire was filled out by patients followed by anthropometric measurements, and grip strength test. Laboratory parameters available from the hospital information system, showing nutritional status of the patients, was also used for the evaluation.

Results: In the entire group, the dependence between a higher NYHA grade and decreasing grip strength assessed ($p=0.003$). Reduced muscle strength was demonstrated in 66.7% of men and 92.3% of women.

For the entire investigated group, the dependence between the degree of cardiac was demonstrated NYHA failure with nutritional status assessed by the MNA questionnaire, increasing NYHA grade was associated with decreasing MNA scores ($p=0.001$). Based on the result of the MNA screening questionnaire, 67.4% of probands were at risk of malnutrition and 26.1% were already in the malnutrition.

In patients with a known albumin level, the dependence between increasing values and increasing muscle strength was not proven ($p = 0.141$). Reduced albumin level was detected in 42.3 % of the included persons.

For the entire investigated group, the dependence between the higher degree of NYHA and decreasing muscle strength relative to BMI ($p=0.027$).

Conclusion: Early detection of malnutrition is important, therefore it is advisable to regularly undo comprehensive assessment of nutritional status, that can detect malnutrition early and thus enabling early initiation of nutritional support.

Keywords: Heart failure, malnutrition, grip strength