

## COMPARISON BETWEEN AGE AND LEFT VENTRICULAR EJECTION FRACTION IN PREDICTION OF RENAL DYSFUNCTION IN CARDIORENAL SYNDROME TYPE 1 AND 2

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Cardiorenal syndrome type 1 represents an acute decompensation of cardiac function leading to acute renal failure, and cardiorenal syndrome type 2 represents chronic abnormalities in myocardial function leading to aggravated chronic kidney disease. The aim of this study was to assess renal function changes in patients hospitalized with heart failure, de novo and acute decompensated, and to evaluate some of the risk factors for renal dysfunction.

A total of 580 patients with heart failure were included in the study. The subgroup of patients with renal dysfunction (368 patients, mean age  $70.29 \pm 9.75$ ) was observed according to: age, sex, and type of heart failure (systolic and diastolic dysfunction). We used logistic regression to calculate non-adjusted ORs and 95% confidence intervals for glomerular filtration rate  $<60$  ml/min/1.73 m<sup>2</sup> and to determine best risk factors for development of kidney dysfunction.

Renal dysfunction was confirmed in 63.44% of patients with heart failure. Non-adjusted OR showed that there was a significant risk for the development of renal damage with age (OR = 5.610;  $p < 0.001$ ), and with the presence of systolic dysfunction (OR = 1.978;  $p < 0.001$ ). The presence of diastolic dysfunction and gender did not have any impact on the development of renal damage.

We demonstrated that patient's age and systolic dysfunction were significant risk factors for the development of renal damage in patients with heart failure, while diastolic dysfunction and gender did not have any significance. Comparing ORs, age was a better predictor of renal dysfunction in cardiorenal syndromes type 1 and 2 than systolic dysfunction.

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**Key words:** Age, cardiorenal syndromes type 1 and 2, heart failure, left ventricular ejection fraction, renal dysfunction