

## **Echocardiographic parameters and clinical outcome after inferior myocardial infarction in patients with one-vessel and multi-vessel coronary artery disease**

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**Introduction:** In our paper we wanted to test if there is statistically significant differences in some echocardiographic measurement and disease outcome between patients with single and multivessel coronary artery disease in inferior myocardial infarction with ST elevation treated with primary percutaneous coronary intervention.

**Methods:** It is a retrospective analysis of the echocardiographic measurements and disease outcome after 3 and 6 months after myocardial infarction between patients divided into two groups - those with single (n = 30) and patients with multivessel coronary artery disease (n = 50), in the period from June 2012 - August 2014, treated with primary percutaneous coronary intervention at the Institute for Cardiovascular diseases of Vojvodina. Data were analyzed in SPSS Statistics ver. 20 and presented in tables and graphs.

**Results:** Left ventricular ejection fraction was in both groups 53%. Between the groups there was statistically significant difference ( $p < 0.05$ ) in the diastolic dysfunction of the heart. The difference in the number of patients within the group of disease outcome after 3 months is statistically significant at  $p < 0.01$ . It is also obtained a significant difference between the patients who were not hospitalized and who were electively hospitalized compared to diastolic dysfunction.

**Conclusions:** The research showed that there were more patients with multiple vessel coronary artery disease that were electively hospitalized, that had symptoms and that had a fatal outcome compared to those with single-vessel disease. From echocardiographic parameters statistically significant difference between the groups was observed in diastolic dysfunction of the heart.

**Key words:** single-vessel and multi-vessel coronary artery disease, inferior wall myocardial infarction, echocardiography