

Glucose lowering after Myocardial Infarction – does it matter what agent we use in type II Diabetes Mellitus patients?

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This paper refers to DIGAMI 2 trial and follow-up strategies

1181 type II Diabetes mellitus (DM 2) patients discharged after a myocardial infarction were followed for more than 2 years, in order to determine the best antidiabetic regimen (age 68 years, 67% males).

The diabetic population was nonrandomly assigned to either insulin (690 patients) or oral agents (268 on sulphonyl-urea and 200 on metformin). The assignment was at investigator decision upon the clinical status of the patients. The impact was analyzed by Cox proportional hazards.

Cardiovascular mortality after 2.1 years of follow-up was not influenced by the type of antidiabetic treatment ($p>0.5$), while the non-fatal recurrence of myocardial infarction or

occurrence of stroke were higher in the insulin group (HR 1.73, 95% CI 1.26-2.37, $p<0.01$). Out of the 1181 diabetic patients, 206 died and 216 developed non fatal myocardial infarction and stroke (162, 54 respectively). In this post-hoc analysis, insulin was not protective when compared to metformin and sulphonyl-urea did not reduce the likelihood to develop a non-fatal myocardial infarction or stroke. These findings may appear strange, but the results might arise from the method of statistical analysis using regression models.

This study is an epidemiological one and further research with randomized trial is needed in order to clearly establish the most beneficial way of treatment for the diabetic patients developing myocardial infarction.

Comment on the paper:

Mellbin L, Malmberg K, et al. – The impact of glucose lowering treatment on long-term prognosis in patients with type 2 diabetes and myocardial infarction: a report from the DIGAMI 2 trial, *Eur Heart Jour* 2008 (29); 2:166-176