

Effect of glycosylated hemoglobin on cardiovascular outcomes of patients with STEMI.

D. Mlayeh, R. Gribaa, E. Neffati, M. Slim, F. Remadi , E. Boughzela.
Department of Cardiology, Sahloul Hospital, Sousse, Tunisia.

Introduction: Dyglycemia on admission is associated with increased mortality rates in patients with ST-elevation myocardial infarction (STEMI).

Aim: Investigate the relationship between dysglycemia and angiographic and clinical outcome after primary or rescue angioplasty for STEMI.

Methods: We prospectively included 188 patients who underwent revascularization for STEMI. We compared intrahospital outcomes between the groups of patients with HG (HG+) and without HG (HG-). Plasma glucose was measured at hospital admission. HG was defined as plasma glucose > 11mmol/l .

Results: Among the overall population, 60 (31.9%) patients had HG. The mean age was 60.77 ± 11.79 years . They were more frequently men (84,4%) with a more frequent history of diabetes and hypertension. A total of 19 cases (31.7 % of the study group) of newly diagnosed diabetes mellitus were registered. In subjects with higher admission glucose the maximal levels of troponin I were higher, as well as maximal values of creatine phosphokinase. Coronary status was more severe in HG+ (52.6 % vs 47.4% $p=0.003$). Procedural success was lower in the HG+ group (31.4% vs 68,6%) with higher rates of per-procedural complications (51.6% vs 48.4%, $p= 0.019$). Intrahospital outcomes were worse in the HG+ group as attested by a higher mortality (3.19% vs 4.25%, $p=0.043$) .Those outcomes were similar in the HG+ group regardless to the diabetic status.

Conclusion: Hyperglycemia on admission is associated with greater myocardial injury and an increased risk of major adverse cardiovascular events at long-term follow-up.