

Hemoglobin A1c Levels in Patients with Acute Coronary Syndrome (ACS) Undergoing PCI

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Background: Diabetes mellitus (DM) is an established risk marker in patients with ACS. The true prevalence of diabetes in such patients may be underestimated on admission because the diagnosis of DM may often be substantially delayed in the outpatient setting and the interpretation of glucose levels in patients with acute myocardial infarction is difficult. In 2008, the International Expert Committee recommended that the diagnosis of diabetes can be made if the hemoglobin A1c (HbA1c) level is $\geq 6.5\%$. The reported prevalence of DM in ACS patients undergoing percutaneous coronary intervention is 30%-40%. We hypothesized that use of HbA1C might reveal a higher prevalence of DM in such patients. Our aim was therefore to determine the prevalence of elevated HbA1c in the patient with ACS undergoing coronary intervention. Methods: Consecutive patients with ACS undergoing PCI in a large tertiary center were included in the study. HbA1C levels were obtained prior to intervention.

Results: 219 patients were enrolled into the study. Age was 64 ± 11.8 years (mean \pm SD). The majority were males (78.1%). Known diabetes was present in 105 (47.9%) patients. Mean HbA1C was $7.13 \pm 1.56\%$ (figure1). In patients with known DM mean HbA1C was $8.24 \pm 1.5\%$ as compared $6.06 \pm 0.52\%$ in patients without known DM. In the latter group 17 (14.7%) had HbA1C levels $\geq 6.5\%$; this group with unknown DM constituted 7.8% of the total population. Therefore adoption of HbA1C as a diagnostic test for DM resulted in overall rate of DM of 56.4% in our cohort.

Conclusions: The true prevalence of DM in a contemporary cohort of ACS patients undergoing coronary intervention is higher than previously reported. Adoption of the HbA1C as a diagnostic test for DM results in small but potentially important increase in the DM prevalence in this group. Long term follow-up is required to assess the association of HbA1C levels on cardiac outcomes and the potential effect of hypoglycemic treatment in this population. <IMAGE02>