



COMMENT ON SHORE ET AL.

## Association Between Hyperglycemia at Admission During Hospitalization for Acute Myocardial Infarction and Subsequent Diabetes: Insights From the Veterans Administration Cardiac Care Follow-up Clinical Study. *Diabetes Care* 2014;37:409–418

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We read with great interest the recently published article by Shore et al. (1) that addresses the important issue of admission hyperglycemia during hospitalization for acute myocardial infarction (AMI). The authors measured the prevalence of admission hyperglycemia in a very large cohort of AMI patients without known diabetes and examined its association with new evidence of diabetes in the 6 months following hospitalization. Diagnostic codes for diabetes, outpatient prescriptions for glucose-lowering medications, and/or HbA<sub>1c</sub>  $\geq 6.5\%$  during or after the index hospitalization were used for diagnosing diabetes. After multivariate analysis, admission hyperglycemia, defined as glucose value  $\geq 140$  mg/dL, was strongly associated with a subsequent diagnosis of diabetes (odds ratio 2.56, 95% CI 2.15–3.06). The conclusions of Shore et al. support our recent findings in a series of 285 nondiabetic patients presenting with AMI in our institution who underwent screening for glucometabolic abnormalities (2). Twenty-three percent of the patients were classified as having newly diagnosed diabetes by fasting glucose during hospital stay or oral glucose tolerance test on discharge, and 38% had impaired glucose regulation (23% impaired glucose tolerance, 15% impaired fasting glucose). In these patients,

we found that admission hyperglycemia, defined as glucose value  $\geq 140$  mg/dL, was independently linked to newly detected diabetes (odds ratio 6.6, 95% CI 2.7–16.3). Thus, the article by Shore et al. (1) and our data (2) suggest that the presence of admission hyperglycemia detected in patients with AMI is predictive of new-onset diabetes. Elevated admission glucose is common among AMI patients and its association with increased mortality has been repeatedly confirmed by several studies, especially in patients without a prior diagnosis of diabetes (3). Mechanisms underlying this higher mortality risk are not totally understood, but one intriguing possibility, as suggested by Shore et al. and our data, is that acute hyperglycemia in patients without known diabetes is a marker of an unrecognized diabetes status that, if left undiagnosed and untreated, increases the risk of adverse outcome after AMI (4,5). We congratulate Shore et al. (1) for their important results, which should encourage cardiologists to screen early for diabetes and other disorders of glucose metabolism among patients presenting with AMI and high admission glucose levels. Adopting this change in current practice has the potential to enhance risk stratification and improve patient management.

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