Unrecognized Diabetes Mellitus and Stress Glycaemia and Its Association with Acute Coronary Syndrome

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BACKGROUND:
Diabetes mellitus is detected in approximately 10-20% of patients suffering from acute coronary syndrome (ACS) who are not known to be diabetics. Increased levels of blood glucose are considered a primary risk factor for heart attacks, in the presence or absence of diabetes.

OBJECTIVE:
The aim of our study was conducted to assess the prevalence of unrecognized DM, pre-DM, or stress hyperglycemia in patients with ACS, and revealing their relationship with in-hospital cardiac events.

PATIENTS AND METHODS:
This was a prospective observational study in which we analyzed parameters of glycemic metabolism, clinical data, and in-hospital cardiac events, in patients with ACS. In this study, patients were compared and analyzed according to the HbA1C and confirmed DM in five groups: [non-DM (< 5.6%), new pre-DM (5.7- 6.4%), new DM (≥ 6.5%), controlled (<7%) and uncontrolled (≥7%) known DM].

RESULTS:
1296 patients, (803 male and 493 female) were included in our study. Impaired glucose metabolism was detected in 48.7% (24.7%+5.3%+18.7) of patients, 10.93% of whom were newly-diagnosed DM. The highest stress glycaemia levels have been observed in new and uncontrolled identified DM. The in-hospital incident rate was 20.6 percent, the mortality rate 7.17 percent, becoming the highest among newly diagnosed and uncontrolled DM cases.

CONCLUSION:
The prevalence of unrecognized DM was higher among ACS patients. Stress hyperglycemia and inability to control hyperglycemia were essential predictors of in-hospital cardiac events.

KEYWORDS:
Diabetes mellitus, stress glycaemia, hemoglobin A1C, acute coronary syndrome, cardiac events

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