

# **THE PROGNOSTIC VALUE OF ADMISSION BLOOD GLUCOSE LEVEL AND GLYCATED HEMOGLOBIN IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION**

**Thesis**

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Care Medicine*

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بسم الله الرحمن الرحيم

[وأنزل الله عليك الكتاب  
والحكمة وَعَلَّمَكَ مَا لَمْ تَكُن تَعْلَمُ  
وَكَانَ فَضْلُ اللَّهِ عَلَيْكَ عَظِيمًا]

صدق الله العظيم  
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## **ABSTRACT**

**Introduction:** Patients either with or without a prior history of diabetes mellitus may present with hyperglycemia during acute myocardial infarction, it is uncertain whether hyperglycemia upon admission, irrespective of the diagnosis of diabetes, remains an independent predictor of in-hospital morbidity and mortality.

**Aim of the Work:** we aimed in this study to assess the impact of admission blood glucose level and Glycated Hemoglobin on the hospital course and outcome in patients presenting with acute myocardial infarction in ICU.

**Patients and methods:** we included fifty patients with acute myocardial infarction divided into two groups, group I included 30 patients with admission blood glucose level less than 180 mg/dl and group II included 20 patients with admission blood glucose level 180 mg/dl or more. Group I was subdivided into group IA which were 16 patients with HbA1c less than 6% and group IB which were 14 patients with HbA1c 6% or more.

All patients were subjected for full history taking, full clinical examination, 12 leads ECG was done for every patient and routine laboratory investigations including cardiac enzymes, Admission blood glucose level and HbA1c were estimated at time of admission of the patients.

**Results:** There was significant correlation between admission blood glucose level and history of diabetes mellitus (p value:0.000 )there is also significant correlation between admission blood glucose level and complications of myocardial infarction including sinus tachycardia, arrhythmia and ICU length of stay (p value: 0.008,0.002 and0.000 respectively ) on the other hand HbA1c level was not found to be correlated with any of the previous parameters

**Conclusion:** We concluded that Elevated admission glucose level is a strong predictor of short-term adverse outcome in patients with acute myocardial

infarctions(AMI). However, the prognostic value of diabetic control (i.e, hemoglobin A<sub>1c</sub> levels) in patients with AMI is still undefined.

**KEY WORDS:** Admission glucose level, acute myocardial infarction, HbA1c