

**IMPACT OF ON ADMISSION OSMOLALITY ON MAJOR ADVERSE
CARDIOVASCULAR EVENTS IN ACUTE MYOCARDIAL INFARCTION
PATIENT**

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ABSTRACT

Background: The main cause of death around the world is cardiovascular disease. According to WHO, in 2008 there are 17.3 million deaths caused by cardiovascular disease, with 7.3 million is the result of myocardial infarction. Some studies suggested that there is an association between elevated blood glucose and BUN on admission and mortality due to acute myocardial infarction. As plasma glucose, BUN, and sodium are the main component of osmolality, we should also analyze the effect of on admission osmolality on clinical endpoints in AMI patient. Previous studies show that the value of osmolality significantly related with clinical outcome in ACS patient.

Objective: The objective of this research is to investigate the influence of increasing osmolality on to the incidence of MACE in AMI patients hospitalized in ICCU

Method: The objective of this research is to investigate the influence of increasing osmolality on to the incidence of MACE in AMI patients hospitalized in ICCU.

Results: This study is an observational study. The study design is a prospective cohort. The study is a part of the previous study conducted in Department of Cardiology and Vascular Medicine. Plasma osmolality was calculated using concentration of sodium, plasma glucose, and blood urea nitrogen on admission.

Conclusion: There is strong association between increasing value of on admission osmolality and the increasing of MACE occurrence.

Key Words: osmolality, AMI, MACE