**BLOOD GLUCOSE LEVEL ON ADMISSION AS A SIMPLE PREDICTOR OF CORONARY OCCLUSION DEGREE IN ACUTE CORONARY SYNDROME**

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Background: Cardiac markers as the recommended diagnostic tool for ACS are not widely available in rural areas in Indonesia. Evidently, high admission glucose level is strongly correlated to the morbidity and mortality of ACS. Therefore, we consider whether this simple test could be a predictor of coronary occlusion degree.

Objective: To investigate the correlation between hyperglycemic state and coronary occlusion degree.

Methods: We did a cross-sectional study of the ACS patients at ICCU, Cipto Mangunkusumo Hospital from 2006-2009. The types of ACS were used to represent coronary occlusion degree. The statistical Pearson test was used to analyze the correlation between admission blood glucose level and the types of ACS.

Results: A total of 387 subjects (male 70.8%; median age 58.8 years old) were analyzed and 185 patients (47.8%) were hyperglycemic. We found significant correlation between hyperglycemic state and the ACS types (r=0.125, p=0.014). This correlation was also significant in both T2DM group (n=129; r=0.171, p=0.006) and non-T2DM group (n=258; r=0.223, p=0.011).

Discussion: Hyperglycemic state plays important role in thrombus formation. Similar with recent studies, hyperglycemic state is correlated with the ACS types representing the occlusion degree. In other words, hyperglycemia is a significant factor to the ACS types, regardless the previous T2DM history.

Thus, admission blood glucose level was indirectly correlated with the ACS types.

Conclusion: Hyperglycemic state has significant correlation to coronary occlusion degree in patients with acute coronary syndrome.