**ASSOCIATION OF GLYCATED HEMOGLOBIN WITH LONG-TERM ADVERSE CARDIAC EVENTS AFTER PERCUTANEOUS CORONARY INTERVENTION IN NON DIABETES PATIENTS (WITH CORONARY ARTERY DISEASE): AN OBSERVATIONAL STUDY FROM THE KOREAN COACT REGISTRY**

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Background: Increasing evidence suggests glycated hemoglobin is associated with cardiovascular risk, even below diagnostic threshold for diabetes. However, it is not settled whether this subdiabetic levels of HbA1c is associated with increased MACE after PCI.

Methods: A total of 9219 patients who underwent PCI for coronary artery disease were enrolled in COACT registry. Of the 3326 patients who completed 4-year clinical follow-up, 1647 patients without known DM were divided into 3 groups according to glycated hemoglobin values categorized by the newly proposed ADA criteria

(i.e < 5.7, 5.7-6.4, ≥6.5 percentage) to compare MACE. We also compared MACE between a group of known diabetes patients (N=684) whose glycated hemoglobin values less than 7.0 percentage with MACE of each other groups.

Results: In the study population (N = 3326), the logistic regression analysis showed that the relationship between HbA1c and MACE was linearly significant. Groups with HbA1c values greater than 5.7 percentage were significantly higher in cardiovascular event rates than the normal glucose tolerance group with HbA1c values less than 5.7 percentage. Furthermore, prediabetes group with HbA1c values 5.7 to less than 6.5 percentage showed no difference in MACE compared to the known diabetes group with HbA1c values less than 7.0 percentage.

Conclusion: Glycated hemoglobin is strongly associated with long-term adverse cardiac events in coronary artery disease in prediabetes patients. Moreover, there was no significant difference in the risk of adverse cardiac event rate between prediabetes group and known diabetes group in good control when they were categorized by glycated hemoglobin.