1- **Correlation between glycosylated HbA1c level and severity of coronary atherosclerosis in non-diabetics**
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Background: *Glycosylated hemoglobin A1C (HbA1c) has been widely recognized as a marker for predicting the severity of diabetes mellitus (DM) and several cardiovascular diseases. However, whether HbA1c could predict presence and severity of coronary artery stenosis in non diabetic patients remains largely unknown.*

Aim of the work: *To study glycosylated hemoglobin level (HbA1c) as an index of presence and severity of coronary artery disease in non-diabetic patients.*

Methods: *We enrolled 100 non diabetic patients underwent coronary angiography for evaluation of chest pain. Patients were included if they had no history of prior revascularization or diabetes mellitus and had fasting blood glucose < 126 mg/dl (7.0 mmol/l) and HbA1c < 6.5% (47mmol/mol). The severity of the CAD was also evaluated using the Gensini score. Serum HbA1c, lipid profile, resting ECG, Echo Doppler and HOLTER monitoring were measured. The patients were classified into two groups by tertiles of baseline HbA1c level (low group (nondiabetics) <5.7%, n = 55 ; high group (prediabetics) between 5.7 and 6.3%, n = 45). The relationships between the plasma HbA1c and presence and severity of CAD and early clinical outcomes were evaluated.*

Results: *There were a statistically significant correlation between the level of plasma HbA1C and angiographic characteristics (P <0.001), statistically significant correlation between the level of plasma HbA1C and total silent ischemic episodes detected by Holter monitoring (P =0.04) and statistically insignificant correlation between the level of plasma HbA1C and myocardial systolic function measured by EF % (P =0.5*)

Conclusion: *High. HbA1C level was an independent predictor of the presence of CAD after adjusting for conventional risk factors of CAD (AUC = 0.8).*