

# 10th World Heart Congress

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## **Glycated hemoglobin (hba1c) levels in non-diabetic patients as early indicator of coronary disease. Experience of regional hospital.**

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### **Purpose:**

Diabetes is a strong risk factor for cardiovascular disease. Prediabetes (Glu: 110-126mg / dl) is five times more likely to progress to Diabetes Mellitus (DM). According to the guidelines of the World Health Organization, the diagnosis of diabetes requires a glycosylated hemoglobin (HbA1c) value greater than 6.4%. This study was designed to investigate the relationship between HbA1c and coronary artery disease (CAD), as well as the relationship between HbA1c and the ultrasound markers of patients under study.

### **Material-Method:**

69 participants (35% women, 65% men), aged 25 to 79 years without diagnosis of MD based on fasting glucose measurements (Glu: <110mg / dl), who did not receive anti-diabetic medication, were recorded. The participants were divided into 2 groups. The first group (n = 29) with HbA1c value from 5.5% to 6.4% while the second group (n = 40) with HbA1c value  $\leq$ 5.5%.

### **Results:**

In the 1st group, CAD was found at 49.6%, while in the second group the corresponding percentage of CAD was found at 28.5% with a statistically significant correlation. No statistically significant difference was observed in the ultrasound indices of the two study groups [mean Simpson ejection fraction (EF) 55.3% vs 50.43%, mean left ventricular diastolic diameter (LVEDD) 49.62 mm vs 48.15mm, mean left atrium diameter (LAd) 38.2mm vs 39.6mm].

### **Conclusions:**

In conclusion, the group with HbA1c values of 5.5% -6.4% showed CAD at a rate of 21% higher compared to the group with HbA1c  $\leq$ 5.5%. The ultrasound indices studied did not show statistically significant differences between the two groups, which means that they do not help to predict coronary heart disease in the groups with the specific HbA1c levels.

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