

**Republic of Yemen**

**Sana'a University**

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Medicine & Health Sciences Department of Cardiology**



# **Diabetes Mellitus Duration and the Severity of Coronary Artery Disease in Cardiac Center at al- Thawra Hospital in Sana'a**

**Thesis submitted in partial fulfillment for the requirement of the master degree in  
medical cardiology**

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الجمهورية اليمنية

جامعة صنعاء

نيابة الدراسات العليا و البحث العلمي

كلية الطب و العلوم الصحية

قسم القلب

الإصابة بمرض سكري الدم مع حده امراض الشرايين التاجيه لدى مرتادي مركز القلب -  
مستشفى الثورة في صنعاء

بحث مقدم كاستيفاء جزئي لمتطلبات الحصول على درجة الماجستير في امراض القلب و الاوعية الدموية

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# Abstract

## Background

Diabetes mellitus (DM) is a common, chronic and complex metabolic disorder. Its direct and indirect effects on the vascular system are major causes of morbidity and mortality.

## Objectives

This study was performed to compare the extent of the coronary artery diseases in non-diabetic patients, type 2 diabetic patients of less than 5 years of duration, patients with 5–10 years of diabetes, and with more than 10 years of diabetic duration.

## Patients and methods

Cross sectional observational prospective study. All patients who underwent CAG as elective one day procedure at Al-Thawra Modern General Hospital, Cardiac Center, over the period from 29 April 2021 to 29 October 2021 were included in our study.

## Results

Diabetic patients group were 112 patients compared with 124 non-diabetic patients. Based on data found in our study, 92% of diabetic and 66.1% of nondiabetic patients were shown to suffer coronary artery stenosis. Severe involvement (3 vessels disease) of coronary artery stenosis was observed in 45.5% and 18.5% of diabetic and nondiabetic patients respectively and left main was observed in 8.9% and 1.6% respectively. A significant Severe involvement (3 vessels disease) of coronary artery stenosis and left main stenosis ( $p = 0.000$ ), were observed in the patients with >10 years of diabetes when compared to those with less than 5 years and 5-10years of diabetic duration.

## Conclusion

Coronary artery disease usually involving more vessels in diabetic patients that increased with the duration of Diabetes Mellitus .

**Keywords:** Coronary Artery Disease, Coronary Angiography, Diabetes Mellitus, Yemeni Patients.