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The Prevalence of Dyslipidemia among  
Acute Coronary Syndrome Patients in Palestine

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## **Abstract**

### **Background:**

Acute coronary syndrome (ACS) is one of the leading causes of morbidity and mortality worldwide. In Palestine, heart diseases are considered an important cause of death and ACS is the most common cause of all cardiovascular-related deaths. Dyslipidemia is identified as one of the most important modifiable risk factors for ACS.

### **Objectives :**

The study aimed to determine the prevalence of dyslipidemia in patients admitted with ACS.

### **Methods:**

A total of 88 patients with ACS were included in a cross-sectional study between January 2021 and March 2021. ACS patients were diagnosed based on ECG and cardiac biomarkers (troponin). Venous blood samples were collected to measure the lipid profile and glycosylated hemoglobin (HbA1c) levels. Interview based questionnaires were collected from each patient.

### **Results:**

In this study, 69.3% were males, 52% were more than 60 years with the mean age of diagnosis was 62.3 years. History of hypertension was present in 65.9%, diabetes mellitus in 59.1%, 60.2% were current smokers and 35.2% were obese (BMI  $\geq$  30). Based on our results, high levels of (LDL, TC, TG, HbA1C) were found in (38.6%, 26.1%, 47.7%, 55.7%) respectively and 75% had low HDL. Dyslipidemia except for high LDL was found to be more prevalent in patients less than 60 years. Females were more probable to have high levels of TG (45.9%) and TC (29.6%) while males were more probable to have high levels of LDL (42.6%) and low levels of HDL (82%). High LDL levels were found to be more frequent in patients with HTN (39.7%), DM (44.2%), Obese (41.9%) and non-smokers (24.1%). High total cholesterol levels were found to be more common in patients with HTN (24.1%), non-diabetics (30.6%), Obese (25.8%) and non-smokers (28.6%). High TG levels were found to be more frequent in patients with HTN (50%), DM (53.8%), Obese (67.7%) and non-smokers (57.1%). Low HDL levels were found to be more common in patients with HTN (75.9%), DM (80.8%), Obese (87.1%) and smokers (83%). Finally, High HbA1c levels were more likely to be found in patients with HTN (65.4%), DM (83.7%), Obese (75%) and non-smokers (80%).

### **Conclusions:**

Dyslipidemia is an important hazard in patients with ACS and is frequently associated with other risk factors. We recommend paying more attention to Lipid profile abnormalities and other modifiable co-morbidities for the prevention and reducing further events of ACS.

### **Keywords:**

ST-elevation myocardial infarction (STEMI), non-ST-elevation myocardial infarction (NSTEMI), unstable angina (UA), acute coronary syndrome (ACS),

dyslipidemia, prevalence, Palestine.