

**Title:** Special features of acute coronary syndrome in Ramadan: Prospective study of a North-African population

**Category:** Prevention

### **Abstract**

Data on the effect of Ramadan on coronary heart disease are rare and controversial. The purpose of our survey is to determine the impact of Ramadan on the prevalence of acute coronary syndrome (ACS) in a population of patients followed in our cardiology department.

**Methods:** This is a prospective study, carried out at the Department of Cardiology and Vascular Diseases in our setting during 2 successive Ramadan periods (2017-2018), including three months period ranging from a month before, during and one month after Ramadan. We included all patients admitted for ACS during the study period. The data were collected on a standardized form. We performed a mono and multivariate analysis of the results.

**Results:** During the six months period of the study, we included 153 patients admitted for ACS with (43%) and without (57%) ST segment elevation. The prevalence of ACS among hospitalized patients over this period was 15% one month before Ramadan, 19% during Ramadan, and 27% one month after Ramadan. According to the results of the multivariate analysis, the risk of ACS is not increased in Ramadan month, and is greater during the following month. In a subgroup analysis of the population of patients with ACS occurring during the month of Ramadan, we found an increased risk of ACS in men over 60 years of age, and those with hypertension or diabetes. The period including Ramadan and the month following it is not associated with an increased risk among subjects with no more than one cardiovascular risk factor (other than age, hypertension and type 2 diabetes).

**Conclusion:** The prevalence of ACS is not increased in the month of Ramadan except in elderly hypertensive and diabetic patients; the increased risk of ACS the following month can be explained by the inadequate lifting of the dietary restriction. More studies need to be done to better explain this difference in prevalence.