

Younger Middle Eastern patients with new acute coronary syndrome more likely to smoke, have high cholesterol: Study

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Smoking harms nearly every organ in the body and causes many diseases. Credit: CDC/Debora Cartagena

Young patients from the Middle East and Gulf region presenting with acute coronary syndrome have a greater prevalence of risk factors, including smoking and high cholesterol compared to older patients also presenting with first acute coronary syndrome. The study, presented at

the [American College of Cardiology Middle East & Eastern Mediterranean 2023](#) conference, found these patients still had similar outcomes compared to older patients.

Acute coronary syndrome (ACS) describes a variety of cardiovascular conditions related to sudden reduction in blood flow to the heart, including heart attack and unstable angina (chest pain).

"We know younger patients in developed countries presenting with [acute coronary syndrome](#) often have a high prevalence of cardiometabolic risk factors," said Firas Al Badarin, MD, a cardiac imager and consultant cardiologist at Cleveland Clinic Abu Dhabi in the United Arab Emirates and one of the study authors.

"While data on these patients in the Middle East and Gulf region is limited, given socioeconomic diversity and a higher prevalence of obesity in the region, determining the burden of cardiovascular risk factors among our younger patients offers an opportunity to target primary prevention efforts."

The study population included 532 consecutive patients admitted to a large tertiary medical center who experienced their first ACS between 2015–2018. Researchers compared characteristics of patients less than 50 years old to those 50 years and older. The study compared baseline characteristics, extent of coronary artery disease, in-hospital stroke, bleeding cardiac arrest and mortality using the appropriate tests.

Overall, 141 patients were less than 50 years old. When compared to patients 50 years and older, young ACS patients were more likely to be men, with a higher prevalence for smoking and family history of premature coronary artery disease. They also had a higher likelihood of presenting at the hospital with a ST-elevation myocardial infarction (the most serious type of heart attack) and higher cholesterol.

However, younger patients were less likely to have diabetes or high blood pressure. Patients less than 50 years old had less extensive coronary artery disease and a similar risk of death, stroke or major bleeding.

"While further research is needed to understand the relationship between various risk factors and ACS severity and patients' outcomes, there are already steps we can take to hopefully reduce ACS in [younger patients](#) in the region," Al Badarin said.

The ACC Middle East & Eastern Mediterranean 2023 conference, hosted with the Hellenic Society of Cardiology, is designed to discuss, share and critique the latest in cardiovascular disease prevention and care to help improve the heart health and care of patients around the world.

Provided by American College of Cardiology

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