

Outcomes Are Worse in STEMI Patients Without Traditional Cardiovascular Risk Factors

An analysis of Swedish registry data showed STEMI patients without cardiovascular risk factors — particularly women — experienced higher mortality.

Some patients who present with ST-segment elevation myocardial infarction (STEMI) do not have a history of standard modifiable cardiovascular risk factors (SMuRFs). Moreover, the proportion of STEMI patients without SMuRFs has increased over time. These researchers used data from the Swedish registry SWEDEHEART to follow patients who presented with a STEMI from 2005 to 2018, did not have SMuRFs, and had no preexisting coronary artery disease. SMuRFs included current smoking, hypercholesterolemia, diabetes, and hypertension.

Out of 62,048 patients with STEMI, 33% were women, and 15% were SMuRF-less. At discharge, patients without SMuRFs were less likely to receive a statin, angiotensin-converting-enzyme inhibitor/angiotensin receptor blocker, or beta-blocker than patients with at least one SMuRF. This disparity was more pronounced among women. SMuRF-less patients had higher mortality at 30 days after STEMI, the primary outcome (11.3% vs. 7.9%), and in-hospital mortality (9.6% vs. 6.5%). SMuRF-less women had the highest 30-day mortality rate (17.6%). Through follow-up (median, 5 years), the SMuRF-less group had higher cardiovascular mortality. A post-hoc mediation analysis suggested that lower use of evidence-based pharmacotherapy partially explained the higher mortality among SMuRF-less STEMI patients.

COMMENT

It is important to remember that a substantial portion of patients presenting with a STEMI lack traditional cardiovascular risk factors. This study suggests that these patients — especially women — are at an elevated risk for higher mortality. Adhering to evidence-based pharmacotherapy at discharge can help attenuate some of this increased risk. — **Fatima Rodriguez, MD, MPH, FACC, FAHA**

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