



Acute and Stable Ischemic Heart Disease

“DE NOVO” HEART FAILURE: A MECHANISM UNDERSCORING SEX DIFFERENCES IN OUTCOMES AFTER ST-SEGMENT ELEVATION MYOCARDIAL INFARCTION

Poster Contributions

Poster Hall, Hall F

Saturday, March 16, 2019, 10:00 a.m.-10:45 a.m.

Session Title: Acute and Stable Ischemic Heart Disease: Clinical 1

Abstract Category: 02. Acute and Stable Ischemic Heart Disease: Clinical

Presentation Number: 1131-393

Authors: *Edina Cenko, Mihaela van der Schaar, Jinsung Yoon, Olivia Manfrini, Zorana Vasiljevic, Sasko Kedev, Marija Vavlukis, Milika Asanin, Davor Milicic, Lina Badimon, Raffaele Bugiardini, University of Bologna, Bologna, Italy*

Background: ST-Segment Elevation Myocardial Infarction (STEMI) complicated by symptoms of acute heart failure (HF) is associated with excess mortality. Yet the relative contribution of sex to the development of acute HF and its related outcomes remains controversial. We aimed to compare the incidence and outcomes of patients with HF during index admission for STEMI according to sex and prior HF status: pre-existing diagnosis of HF, as assessed by past medical history, or no prior HF.

Methods: Cohort study using a population-based registry consisting of 8,409 STEMI patients with acute HF status recorded at baseline. Adjusted 30-day mortality and HF rates at index admission were estimated using inverse probability of weighting and logistic regression models. HF was defined as Killip class 2 or higher and classified according to prior medical history as acute “de novo” or decompensated HF.

Results: A total of 2,526 women and 5,883 men had HF status recorded at baseline and were included in the analysis. Of these patients, 2,403 (95.1%) women and 5,664 (96.3%) men have never experienced HF before index admission. After adjustment for baseline clinical covariates, the incidence of “de novo” HF was significantly higher for women than for men (29.4% vs 21.9%, OR 1.23; 95%CI 1.10-1.38). For “de novo” HF presentations women have higher 30-day mortality than men (9.5% vs 6.2%; OR 1.58; 95%CI 1.33-1.88). After adjusting for potential confounders, a history of pre-existing HF was strongly associated with increased risk of acute decompensated HF at index admission (OR 3.89; 95%CI, 3.02-5.01). Nevertheless, when women and men presented with acute decompensated HF their outcomes are equally negative with a 30-day mortality of 11.3% vs 12.9%, respectively (OR 0.86; 95%CI 0.43-1.70).

Conclusion: Female sex has differing effects among patients with STEMI according to prior medical history of HF. It worsens outcomes in patients with acute “de novo” HF but has neutral effects in those with acute decompensated HF. “De novo” HF is a key feature to explain mortality difference between sexes.