Do differences related to gender impact coronary angiogram findings and outcomes in patients presenting with non-ST elevation myocardial infarction?

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KEYWORDS: coronary artery disease, gender differences, major adverse cardiac events.

CITATION: Cardiol Croat. 2024;19(11-12):386. | https://doi.org/10.15836/ccar2024.386

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Introduction: Data on the prognostic significance of gender among patients with non-ST elevation acute coronary syndrome (NSTE-ACS) are conflicting. Several studies have identified greater mortality rates in women, attributing this trend to the higher incidence of accompanying comorbidities, higher age and suboptimal treatment among female subjects. Conversely, other research contends that even after adjusting for these factors, the prognosis for women remains poorer. Whether these disparities persist in the era of new guidelines and primary or early PCI treatment is yet to be established.[1] The aim of the study was to assess gender disparities in the severity of coronary artery disease (CAD) and major adverse cardiac events' (MACE) incidence, among patients with NSTE-ACS.

Patients and Methods: We conducted a registry-based study including patients with NSTE-ACS hospitalized in our centre from January 2017 to January 2023. Data on CAD severity and Syntax score, which evaluates complexity based on coronary anatomy and lesion characteristics, were collected. Follow-up data were acquired through clinical follow up visits or telephone interviews. The MACE was a composite of reinfarction, need for revascularization, cardiovascular death, or death from any cause.

Results: This registry-based study included 1102 patients with NSTE-ACS, 32.5% were female. Median Syntax score was 17 (IQR 6-21), with 684 (61%) patients having low (<16), 196 (17%) medium (16-22), and 246 (22%) high score (>22), respectively. Gender did not correlate with CAD severity as assessed by Syntax score (men: low 59%, medium 18% and high 23% vs. women low 64%, medium 16% and high 20%, p=0.267), nor when assessed as single-vessel or multivessel disease (single-vessel: men 37 vs. women 42%; multi-vessel: men 63% vs. women 58%, p=0.073). After a median follow up of 17 (6-27) months, gender did not impact a MACE incidence during follow up.

Conclusion: Our real-world data suggests there are no significant gender disparities regarding CAD severity among patients with NSTE-ACS, nor it influences MACE incidence in long-term follow up.

RECEIVED:
September 25, 2024

ACCEPTED:
October 31, 2024

LITERATURE

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