

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

Marko Galić¹; Ivan Zeljković²; Petra Bistrović²; Šime Manola²; Andrej Novak²; Nikola Pavlović²; Ivana Jurin²; Marin Pavlov²; Aleksandar Blivajs²; Irzal Hadžibegović²

Introduction



Data on the prognostic significance of gender among patients with non-ST elevation acute coronary syndrome (NSTEMI-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. 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 NSTEMI-ACS.

Patients and Methods



We conducted a registry-based study including patients with NSTEMI-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



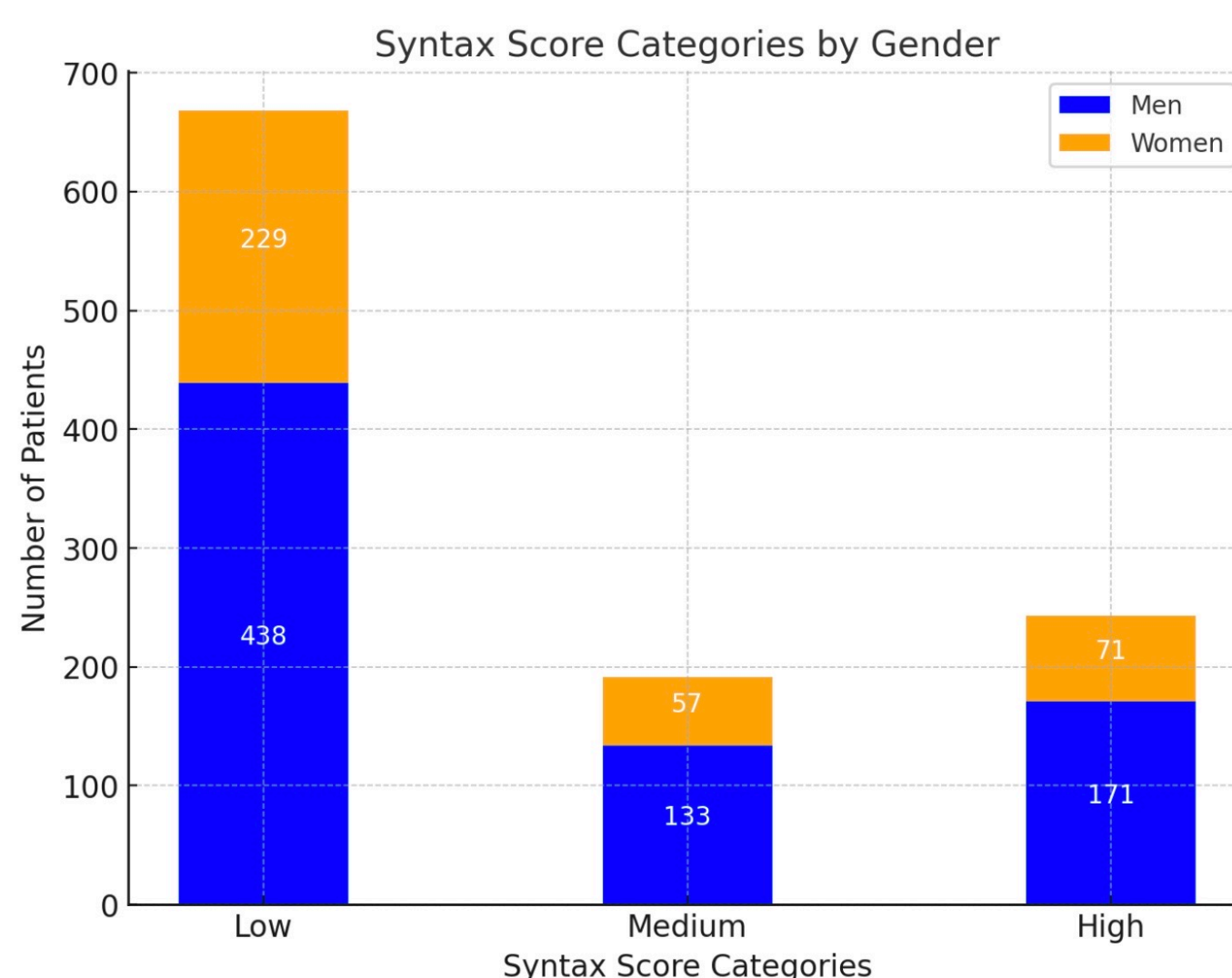
This registry-based study included 1102 patients with NSTEMI-ACS, 32.5% were female. Median SYNTAX score was 17 (IQR 6 – 21), with 684 (61%) patients having low (<16), 196 (17%) medium (16-22), and 246 (22%) high score (>22), respectively. Gender didn't correlate with CAD severity as assessed by SYNTAX score (men: low 59%, medium 18% and high 23% vs. Women low 64%, medium 16%, high 20%, $p = 0.267$) (Figure 1), nor when assessed as single-vessel disease or multi-vessel disease (single-vessel: men 37% vs. women 42%; multi-vessel: men 63% vs. women 58%, $p = 0.073$) (Figure 2). After a median follow up of 17 (6-27) months gender did not impact MACE incidence during follow up

Conclusion



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

Figure 1



SYNTAX Score	Men	Women	Total
Low	427	243	670
Medium	130	61	191
High	166	76	242
Total	723	379	1102

$P = 0.267^*$

*Chi-squared test

Figure 2



Keywords: Gender differences, Coronary artery disease, NSTEMI, MACE

Literature: Mann DL, Zipes DP, Libby P, Bonow RO, Braunwald E. Braunwald's heart disease : a textbook of cardiovascular medicine. Philadelphia: Elsevier/ Saunders; 2015.

