

Sex differences in acute myocardial infarction: clinical characteristics, management practices, and outcomes for patients in a large tertiary hospital from a developing country

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Abstract

Background: Several studies have shown sex differences in the presentation, diagnosis, therapy, and outcomes of acute coronary syndrome. Women with acute coronary syndrome had worse short- and long-term outcomes than men. The purpose of this study is to examine the impact of sex discrepancies on the clinical presentations of acute myocardial infarction, treatment methods, and patient outcomes at a large Palestinian tertiary hospital.

Methods: A retrospective cohort study to include all patients with myocardial infarction presented to An-Najah National University Hospital from 2018 to 2020 was used. In addition, age, sex, body mass index, smoking history, ST-segment elevation myocardial infarction, non-ST segment elevation myocardial infarction, comorbidities, previous percutaneous coronary intervention, and previous coronary artery bypass graft were all gathered and analyzed.

Results: : Of the 422 patients that were enrolled in this study, 96 (22.7%) were women. Compared with men, women were older ($p < 0.001$), and had significantly higher rates of diabetes mellitus ($p < 0.001$), and hypertension ($P < 0.001$). In addition, women had more chances to present with atypical chest pain ($p = 0.012$). Furthermore, non-ST segment elevation myocardial infarction was more prevalent among women ($p = 0.017$). Regarding the in-hospital course, the median number of stents was statistically significant in men ($p = 0.029$), but women have significantly higher in-hospital mortality ($p = 0.013$).

Conclusion: Myocardial infarction presents differently in males and women. Women had more comorbidities, were older than men, had atypical presentations, and had a higher in-hospital mortality rate. As a result, while diagnosing and treating patients suspected of having a myocardial infarction, healthcare practitioners must account for these discrepancies in order to reduce the mortality rate among women.

Keywords: Palestine; myocardial infarction; sex differences; presentation; management; outcome