Gender differences in patients presenting with acute coronary syndrome – observational single center study

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Introduction: Women with the acute coronary syndrome (ACS) have higher short and long-term mortality rates than similarly aged men.^{1,2}

Patients and Methods: This retrospective observational study was conducted in the cardiovascular department in an eight-month period. Patients over 26 years of age with ACS were enrolled in this study.

Results: Among the 219 included patients, 65 (29.6%) were female. Compared with men, women had higher prevalence of previous myocardial infarction (21.5% vs. 12.9%), while the previous percutaneous coronary intervention (PCI) was performed in 6.1% of women and 12.9% of men. Cerebrovascular disease was present in 4.6% of women and 5.1% of men, while peripheral artery disease was present in 9.2% of women and 4.5% of men. Previous cardiovascular risk factors were present in women: smoking 29.2% vs. 35.7%; arterial hypertension 78.4% vs. 71.4%; diabetes 27.7% vs. 22.7%; hyperlipidemia 66.6% vs. 56.5%. Beta blockers were used in 32.3%, ACE inhibitors in 41.5% and statins in 26.2% of women, while 24.6%, 25.3% and 22.1% in men. Hospitalization stay was similar for both sexes (6.96 days for women vs. 7.19 days for men). At the time of ACS, women were older than men (average age 68.03 vs. 61.24). Culprit coronary artery was in women RCA in 32.6%, LAD in 50% and ACx in 17.4%, while in men RCA in 34.7%, LAD in 42.7% and ACx in 22.6%. According to the type of the lesion in women, type A was present in 25.6%, type B in 30.2%, type C in 11.6% and coronary occlusion in 32.6%; while in men 19.5%, 35%, 12.2% and 33.3%. Regarding the severity of coronary artery disease, measured as a number of diseased coronary segments, women had fewer segments involved (3.09 vs. 3.52). The number of stents implanted was less in women (1.01 vs. 1.28). GpIIb/IIIa inhibitor was used in 13.8% of women vs. 18.1% of men.

Discussion and Conclusion: Women with ACS present seven years later than men. The higher rate of previous myocardial infarction and a lower rate of previous PCIs were observed in women. Regarding cardiovascular risk factors, women had higher rates of diabetes, arterial hypertension, and hyperlipidemia, as well as higher rates of using optimal medical therapy. It seems that more complex coronary artery disease was present in men, mainly seen as a shift type A and B lesions, but also as more coronary segments involved, more stents implanted and more antiplatelet GpIIb/IIIa inhibitors used.

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LITERATURE

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