Closing the gender gap in the diagnosis and treatment of heart disease

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Cardiovascular disease in women is under-recognised, under-diagnosed, and under-treated.[1] In 1991, Bernadine Healy highlighted sex bias in the management of coronary artery disease, noting that, to receive similar management, women with heart disease must present "just like a man."[2] Concerted efforts to improve the recognition and treatment of coronary artery disease in women have since been undertaken both in the community and by medical professionals. Nevertheless, 34 years later there are still sex-based differences in the management and outcomes of coronary artery disease in Australia and around the world. The reasons for these differences are complex and probably include both sex-specific biological mechanisms in the pathophysiology of cardiac disease and gender-related health disparities.[1] A 2018 *MJA* research article based on national data for people with ST-elevation myocardial infarction (STEMI) reported that female patients received less invasive management and less guideline-directed preventive therapy, and that their outcomes during follow-up were poorer than for male patients.[3] In this issue of the *MJA*, Kazi and colleagues[4] provide further evidence of differences in the treatment of male and female patients with STEMI in Australia, as well as providing some hope that we may be slowly closing the gender heart gap.

Kazi and colleagues retrospectively reviewed treatment and outcomes for adults who presented with first episode STEMI to New South Wales hospitals during 2011–2020, including rates of revascularisation within seven days of presentation and major adverse cardiovascular events and mortality during the twelve months following admission. The authors were particularly interested in assessing whether sex differences in treatment and outcomes had changed over time.[4]

Consistent with previous reports,[3] Kazi and colleagues found that female STEMI patients were older a presentation and had higher levels of comorbidity than male patients. Female STEMI patients were also more likely to live in areas of socio-economic disadvantage. Female patients were less likely to undergo timely angiography, percutaneous coronary intervention, and coronary artery bypass grafting, and adverse event and mortality rates during 12-month follow-up were higher for female than male patients. Angiography and percutaneous coronary intervention rates increased for both male and female patients during 2011–2020, but the increase was more rapid for female patients. Similarly, the decline in both cardiovascular death and all-cause mortality was slightly more rapid for female patients.[4]

The reasons for sex differences in the treatment of and the prognosis for patients with STEMI, both in Australia and overseas, are complicated and require further study. The retrospective nature of the analysis by Kazi and colleagues limited their ability to explain the persistent differences in invasive procedure rates and mortality between male and female patients. Consistent with previous reports,[5] the authors speculate that higher mean age and greater comorbidity at presentation for female patients may be contributory factors, as may the higher rates of myocardial infarction with non-obstructed coronary arteries and spontaneous coronary artery dissection seen in female patients.[6]

The narrowing of the treatment gap for male and female patients over ten years[4] is heartening. This improvement might be explained by greater awareness of the prevalence and potential for different presentation of cardiac disease among women, as well as greater recognition of sex-specific risk factors for cardiovascular disease.[1] It is also encouraging that the improvement occurred without specific sex-based interventions, such as those reported to have reduced sex-related disparities in large centres in the United States.[7] As Kazi and colleagues acknowledge, however, it will take decades for the gaps to close completely at the current rates of change. We should clearly aim to rectify these discrepancies more rapidly, to reduce the almost six percentage point difference in 12-month mortality reported by the authors.[4] Fully understanding the reasons for the different treatment of female patients is the first step, and should be of utmost interest to clinicians, policy makers, and, most importantly, to the women themselves.

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