ABSTRACT

Ischemic heart disease (IHD) has historically been considered a male disease. However, IHD is the leading cause of death among both men and women. In the USA, more women than men die annually from IHD. Despite the established benefits of PCI in reducing fatal and nonfatal ischemic complications, only an estimated 33% of annual PCIs were performed in women (in USA).

The earliest trials evaluating PCI outcomes enrolled primarily men and the results were generally extrapolated to women. Some later studies proved such extrapolation to be inappropriate. These studies suggested there was a female sex-specific increased morbidity and mortality following PCI.

Recent advances in angioplasty equipment and technique, adjunctive pharmacotherapy, and increased use of stents have improved outcomes in both women and men. Nevertheless, some authors claim that women still have worse clinical outcomes than those of men. According to some studies, increased adverse outcomes of women undergoing PCI appears to be related to: smaller body surface area & vessel size, older age at presentation, and heavier burden of comorbidities at presentation, eg: diabetes mellitus (DM), hypertension, chronic kidney disease, obesity & metabolic syndrome. Adjustments for these factors often eradicated any sex differences.

Diabetic patients are known to have an aggressive form of atherosclerosis with less favorable long-term survival after PCI. DM is frequently identified as an independent predictor of in-stent restenosis (ISR). Relatively recently, drug-eluting stents (DES) were introduced. DES showed promising results compared to bare-metal stents (BMS) in many patient subgroups, particularly diabetics. Early data suggest favorable long-term results in both men and women. Nevertheless, women continue to represent a small sample (15 to 38%) of the population in studies of PCI, and still relatively few sex-specific data exist.