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Editorial

Gender and Age Differences in Chronic Heart Failure Patients

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Research studies have shown that there are significant gender differences in heart failure patients as regards their etiology, baseline characteristics, response to treatment and prognosis. Studies have also shown that the younger heart failure patients may differ from their older counterparts as regards etiology, co-morbidities, presentation as well as outcomes and prognosis. Upon review of some of the landmark trials we appreciate the fact that women and younger population are under-represented in these studies. For instance the CONSENSUS (Cooperative North Scandinavian Enalapril Survival Study) trial, which concluded that addition of enalapril to conventional heart failure therapy led to improvement in symptoms and survival, included only 29% females in the placebo arm and 30% in the enalapril arm. Similarly the mean ago of the patients included was 70 years in the placebo arm and 71 years in the enalapril arm [1]. MERIT-HF (Metoprolol CR/XL Randomised Intervention Trial in Congestive Heart Failure trial established the beneficial effect of metoprolol controlled/extended release in reducing mortality in patients with decreased ejection fraction and symptoms of heart failure. MERIT-HF included 23% females in the metoprolol arm and 22% in placebo arm. The mean age of patients in the placebo arm was 63.7 and metoprolol arm was 63.9 years [2]. Ghali JK, et al., studied the impact of gender in the Beta-Blocker Evaluation of Survival Trial (BEST) and inferred that women with congestive heart failure were younger, more likely to be black, with a higher prevalence of non-ischemic etiology than men. Compared to men, women had a higher right and left ventricular ejection fraction, higher heart rate, greater cardiothoracic ratio, higher prevalence of left bundle branch block, lower prevalence of atrial fibrillation, and lower plasma nor epinephrine level [3].

Sheppard R et al., studied patients with a new diagnosis of congestive heart failure at the population level from the Quebec hospital discharge database. Medical records of 16,017 men and 16,622 women were reviewed. The study revealed that female patients with CHF compared with male patients were older (78 +/- 11 vs. 73 +/- 11 years, p <0.001), had more hypertension (41% vs. 28%, p <0.001) and hyperlipidemia (18% vs. 14%, p <0.001) but less frequent myocardial infarction (19% vs. 25%, p <0.001). Female patients were less likely to be prescribed an angiotensin-converting enzyme inhibitor (60% vs. 66%) and more likely to be prescribed a beta blocker (38% vs. 34%). Males and females had similar yearly numbers of rehospitalizations for CHF (1.4 +/- 1.0 vs. 1.5 +/- 1.0) and emergency room visits (1.7 +/- 1.2 vs. 1.8 +/- 1.3) [4]. Wong, et al., observed that younger heart failure patients were more likely to be black and develop heart failure at an early age. Younger patients were more likely to be dilated cardiomyopathy and had fewer incidences of co-morbidities like diabetes mellitus, hypertension, atrial fibrillation and stroke [5].

We tend to extrapolate the results of the drug trials to all our heart failure population. We need to review these trials with their merits and demerits and the populations that were included. We have to review the demographic breakdown and ascertain the benefits to the corresponding sub-groups. There is considerable interest in pharmacogenetics which may help in individualizing therapy for patients and overcome issue of non-responders. We also need better representation of younger patients and women in heart failure trials to better represent our heart failure population.

References

1. The CONSENSUS Trial Study Group. Effects of enalapril on mortality in severe congestive heart failure. Results of the Cooperative North Scandinavian enalapril survival study (CONSENSUS). N Engl J Med 1987; 316: 1429–1435.
2. MERIT-HF Study Group. Effect of metoprolol CR/XL in chronic heart failure. Metoprolol CR/XL Randomized Intervention Trial in Congestive Heart Failure (MERIT-HF). Lancet. 1999; 353: 2001-2007.
3. Jalal K Ghali, Heidi J Krause-Steinrauf, Kirkwood F Adams, Steven S Khan, Yves D Rosenberg, Clyde W Yancy. Gender differences in advanced heart failure: insights from the BEST study. J Am Coll Cardiol. 2003; 42: 2128-2134.
4. Sheppard R, Behlouli H, Richard H, Pilote L. Effect of gender on treatment, resource utilization, and outcomes in congestive heart failure in Quebec, Canada. The American Journal of Cardiology. 2005; 95: 955-959.
5. Wong CM, Hawkins NM, Jhund PS, et al. Clinical characteristics and outcomes of young and very young adults with heart failure: the CHARM programme (Candesartan in Heart Failure Assessment of Reduction in Mortality and Morbidity). J Am Coll Cardiol 2013; 62: 1845–1854.

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