ABSTRACT

Background: Poor health-related quality of life (HRQL) is common in heart failure (HF), but there are few data on HRQL in HF and the association between HRQL and mortality outside Western countries. Methods: We used the Kansas City Cardiomyopathy Questionnaire-12 (KCCQ-12) to record HRQL in 23 291 patients with HF from 40 countries in 8 different world regions in the G-CHF study (Global Congestive Heart Failure). We compared standardized KCCQ-12 summary scores (adjusted for age, sex, and markers of HF severity) among regions (scores range from 0 to 100, with higher score indicating better HRQL). We used multivariable Cox regression with adjustment for 15 variables to assess the association between KCCQ-12 summary scores and the composite of all-cause death, HF hospitalization, and each component over a median follow-up of 1.6 years. Results: The mean age of participants was 65 years; 61% were men; 40% had New York Heart Association class III or IV symptoms; and 46% had left ventricular ejection fraction ≥40%. Average HRQL differed between regions (lowest in Africa [mean± SE, 39.5±0.3], highest in Western Europe [62.5±0.4]). There were 4460 (19%) deaths, 3885 (17%) HF hospitalizations and 6949 (30%) instances of either event. Lower KCCQ-12 summary score was associated with higher risk of all outcomes; the adjusted hazard ratio (HR) for each 10-unit KCCQ-12 summary score decrement was 1.18 (95% CI, 1.17-1.20) for death. Although this association was observed in all regions, it was less marked in South Asia, South America, and Africa (weakest association in South Asia: HR, 1.08 [95% CI, 1.03-1.14]; strongest association in Eastern Europe: HR, 1.31 [95% CI, 1.21-1.42]; interaction P<0.0001). Lower HRQL predicted death in patients with New York Heart Association class I or II and III or IV symptoms (HR, 1.17 [95% CI, 1.14-1.19] and HR, 1.14 [95% CI, 1.12-1.17]; interaction P=0.13) and was a stronger predictor for the composite outcome in New York Heart Association class I or II versus class III or IV (HR 1.15 [95% CI, 1.13-1.17] versus 1.09 [95% CI, [1.07-1.11]; interaction P<0.0001). HR for death was greater in ejection fraction ≥40 versus <40% (HR, 1.23 [95% CI, 1.20-1.26] and HR, 1.15 [95% CI, 1.13-1.17]; interaction P<0.0001). Conclusion: HRQL is a strong and independent predictor of all-cause death and HF hospitalization across all geographic regions, in mildly and severe symptomatic HF, and among patients with preserved and reduced ejection fraction. Registration: URL: https://www.clinicaltrials.gov; Unique identifier: NCT03078166.

Keywords: health status; heart failure; prognosis; quality of life; ventricular function, left.