Social frailty provides additive prognostic impact on one-year outcome in aged patients with congestive heart failure

K. Jujo[1], N. Kagiyama[2], K. Kamiya[3], H. Saito[4], K. Saito[5], Y. Ogasahara[5], E. Maekawa[6], M. Konishi[7], T. Kitai[8], K. Iwata[8], H. Wada[9], T. Kasai[10], H. Nagamatsu[11], T. Ozawa[12], Y. Matsue[10]

[1]Tokyo Women's Medical University, Tokyo, Japan; [2]West Virginia Institute Heart and Vascular Institute, Morgantown, United States of America; [3]Kitasato University, Rehabilitation, Tokyo, Japan; [4]Kameda Medical Center, Chiba, Japan; [5]The Sakakibara Heart Institute of Okayama, Okayama, Japan; [6]Kitasato University, Nursing, Tokyo, Japan; [7]Yokohama City University Medical Center, Yokohama, Japan; [8]Kobe City Medical Center General Hospital, Kobe, Japan; [9]Jichi Medical University Saitama Medical Center, Saitama, Japan; [10]Juntendo University School of Medicine, Tokyo, Japan; [11]Tokai University School of Medicine, Kanagawa, Japan; [12]Odawara Municipal Hospital, Rehabilitation, Kanagawa, Japan

Funding Acknowledgement: Type of funding source: Private grant(s) and/or Sponsorship. Main funding source(s): Novartis Pharma Research Grants, Japan Heart Foundation Research Grant

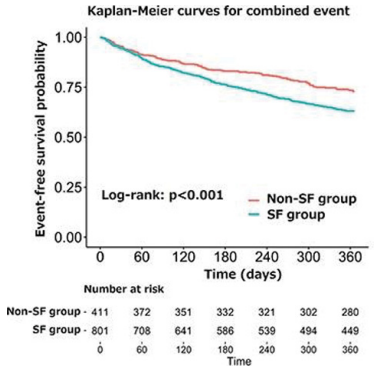
Background: Frailty is associated with multisystem declines in physiologic reserve and increased vulnerability to stressors, resulting in increased risks of adverse clinical outcomes in patients with heart failure (HF). Although frailty is conceptualized as an accumulation of deficits in multiple areas, most of the studies have focused mainly on physical frailty, and the social domains is one of the least investigated area.

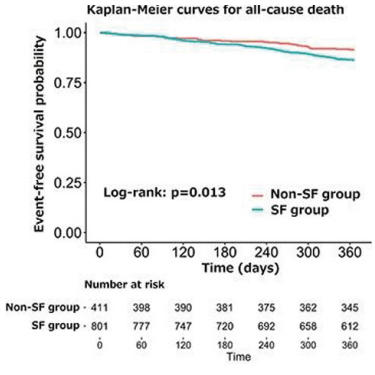
Objectives: We prospectively evaluated the incidence and prognostic implication of social frailty (SF) in older patients with HF.

Methods: The FRAGILE-HF is a multicenter, prospective cohort study including patients hospitalized for HF and aged ≥65 years old. We defined SF by Makizako's 5 items, which are 5 questions proposed and validated to be associated with future disability. The primary endpoint of this study was a composite of death from any cause and rehospitalization due to HF. The impact of SF on all-cause mortality alone was also evaluated.

Results: Among 1,240 hospitalized HF patients, 5 simple questions revealed that 825 (66.5%) were in SF. During 1-year observation period after the discharge, the combined endpoint was observed in 399 (32.2%) patients, and 145 (11.7%) patients died. Kaplan-Meier analysis showed that SF patients had significantly higher rates of both the combined endpoint and all-cause mortality than those without SF (Log-rank test: $p<0.05$ for both, Figures). Moreover, SF remained independently associated with higher event rate of the combined endpoint (hazard ratio: 1.30; 95% confidence interval: 1.02 to 1.66; p=0.038) and all-cause mortality (hazard ratio: 1.53; 95% confidence interval: 1.01 to 2.30; p=0.044), even after adjusting for other covariates. Significant incremental prognostic value was shown when information on social frailty was added to known risk factors for combined endpoint (NRI: 0.189, 95% confidence interval: 0.063–0.316, p=0.003) and all-cause mortality (NRI: 0.234, 95% confidence interval: 0.073–0.395, p=0.004).

Conclusions: Among older hospitalized patients with heart failure, two-thirds of the population was with SF. Evaluating SF provides additive prognostic information in elderly patients with heart failure.





Downloaded from https://academic.oup.com/eurheartj/article/41/Supplement_2/ehaa946.1152/6006049 by guest on 10 April 2024