

RESEARCH HIGHLIGHTS

HEART FAILURE

HF potentially preventable in the elderly

Heart failure (HF) is common among elderly patients; the condition is largely attributable to potentially modifiable risk factors and is affected by the race and sex of patients. These findings from the large epidemiological Health, Aging, and Body Composition (Health ABC) study have been reported in the *Archives of Internal Medicine*. “We as a team are very concerned about the increasing HF prevalence in the US and how this will likely get worse with the aging of the US population,” explains investigator Javed Butler. “In order to plan effective prevention interventions for HF in the elderly, we need to identify high-risk individuals,” he continues. The Health ABC study was well-suited to the study of these issues.

Men and women aged between 70 and 79 years were enrolled in this population-based, NIH-sponsored cohort. Individuals with limited mobility, communication difficulties, or cognitive impairment were excluded. Participants were asked to report hospitalizations and were interviewed about cardiovascular events at 6-monthly intervals. The average age in the 2,934-person cohort was 73.6 years; 58.6% of those enrolled were white and 47.9% were male. During the study (median follow-up 7.1 years), 258 individuals (8.8%) developed HF. The investigators found that the risk of incident HF was 41% higher among black than white participants and 34% higher in men than in women. The population-attributable risk was higher among black individuals than white



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individuals for six of the eight modifiable (smoking, systolic blood pressure, left ventricular hypertrophy, and coronary heart disease, but not fasting glucose level) and potentially modifiable (heart rate and glomerular-filtration rate, but not albumin level) risk factors assessed. The proportion of black patients in whom HF was potentially preventable if all modifiable risk factors were eliminated was 67.8% compared with 48.9% of white patients. Across the cohort as a whole, mortality was higher among those who developed HF compared with individuals who did not have HF (18.0% versus 2.7%). Although there was no difference in mortality between the races, black patients with HF were twice as likely as white patients to be rehospitalized.

The investigators now plan to design and implement risk factor interventions to assess the possibility of reducing the incidence of new-onset HF in elderly people. “The finding that half or more of the population-attributable risk for incident HF is explained by modifiable risk factors is encouraging,” says Jerome Fleg from the US National Heart, Lung, and Blood Institute. “These data set the stage for randomized trials and registries to determine whether aggressive treatment of these risk factors reduces incident HF in the elderly.”

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Original article Kalogeropoulos, A. *et al.* Epidemiology of incident heart failure in a contemporary elderly cohort: the Health, Aging, and Body Composition Study. *Arch. Intern. Med.* 169, 708–715 (2009).