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Original Contribution

Midlife Risk Factors and Healthy Survival in Men

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Context Healthy survival has no clear phenotypic definition, and little is known about its attributes, particularly in men.

Objective To test whether midlife biological, lifestyle, and sociodemographic risk factors are associated with overall survival and exceptional survival (free of a set of major diseases and impairments).

Design, Setting, and Participants Prospective cohort study within the Honolulu Heart Program/Honolulu Asia Aging Study. A total of 5820 Japanese American middle-aged men (mean age, 54 [range, 45-68] years) free of morbidity and functional impairments were followed for up to 40 years (1965-2005) to assess overall and exceptional survival. Exceptional survival was defined as survival to a specified age (75, 80, 85, or 90 years) without incidence of 6 major chronic diseases and without physical and cognitive impairment.

Main Outcome Measure Overall survival and exceptional survival.

Results Of 5820 original participants, 2451 participants (42%) survived to age 85 years and 655 participants (11%) met the criteria for exceptional survival to age 85 years. High grip strength and avoidance of overweight, hyperglycemia, hypertension, smoking, and excessive alcohol consumption were associated with both overall and exceptional survival. In addition, high education and avoidance of hypertriglyceridemia were associated with exceptional survival, and lack of a marital partner was associated with mortality before age 85 years. Risk factor models based on cumulative risk factors (survival risk score) suggest that the probability of survival to oldest age is as high as 69% with no risk factors and as low as 22% with 6 or more risk factors. The probability of exceptional survival to age 85 years was 55% with no risk factors but decreased to 9% with 6 or more risk factors.

Conclusion These data suggest that avoidance of certain risk factors in midlife is associated with the probability of a long and healthy life among men.

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Masaki, and Curb) and Public Health Sciences and Epidemiology (Dr Grove), John A. Burns School of Medicine, University of Hawaii at Manoa, and Cancer Research Center of Hawaii, University of Hawaii (Drs Grove and Donlon), Honolulu; and College of Nursing, Okinawa Prefectural University, Okinawa, Japan (Dr D. C. Willcox).

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