Smoking Reduction at Midlife and Lifetime Mortality Risk: A Follow-Up Study of Israeli Working Men

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Previous studies failed to demonstrate survival advantage of smoking reduction. The authors assessed survival and life expectancy according to changes in smoking intensity in a cohort of Israeli working men. Baseline smokers recruited in 1963 were reassessed in 1965 (n = 4,633; mean age, 51 years) and followed-up prospectively for mortality through 2005. Smoking intensity at both time-points was self-reported and categorized as none, 1-10, 11-20, and greater than 20 cigarettes per day. Change between smoking categories was noted, and participants were classified as follows: increased (8%), maintained (65%), reduced (17%) or quit smoking (10%). During a median (Q1 - Q3) follow-up of 26 (16 - 35) years, 87% of participants died. Changes in intensity were associated with survival (Figure). In multivariable-adjusted models, the HRs (95% CIs) for mortality were 1.14 (0.99, 1.32) among increasers, 0.85 (0.77, 0.95) among reducers and 0.78 (0.69, 0.89) among quitters, compared with maintainers. Inversely, the adjusted ORs (95% CIs) of surviving to age 80 were 0.77 (0.60, 0.98), 1.22 (1.01, 1.47) and 1.33 (1.07, 1.66), respectively. The survival benefit associated with smoking reduction was mostly evident among heavy smokers and for cardiovascular disease mortality. These results suggest that decreasing smoking intensity should be considered as a risk-reduction strategy for heavy smokers who cannot quit abruptly.
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