Low-Risk Lifestyle Protects Against Coronary Events, All-Cause Mortality

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All-cause mortality was 80% lower among subjects who maintained normal weight, ate moderately, exercised, and did not smoke compared with those who followed none of these habits.

There is widespread epidemiological evidence that healthy lifestyle behaviors can decrease the risk of adverse cardiovascular and cerebrovascular events. However, few studies have systematically investigated the impact of these valuable interventions in a prospective fashion on surrogate markers of disease (such as coronary artery calcification [CAC]) and “hard endpoints” (such as coronary heart disease [CHD] events and total mortality).

In this longitudinal single-cohort study by Ahmed and colleagues, the association of healthy lifestyle behaviors (smoking avoidance, regular exercise, maintenance of normal weight, Mediterranean-style diet) and cardiovascular disease was investigated. Both intermediate measures of disease such as coronary calcium, as well as hard endpoints and clinical outcomes, such as CHD events and total mortality, were reported in the Multi-Ethnic Study of Atherosclerosis (MESA) cohort; mean follow-up was almost 8 years.

The authors found that these good lifestyle habits were associated with lower CAC incidence, slower CAC progression, a strong trend toward lower CHD risk, and significantly lower total mortality. Subjects who adopted all 4 of these behaviors had an 80% lower death rate than those who followed none of the healthy habits.

This is the first study to connect the protective effects of a healthy lifestyle across baseline subclinical coronary artery disease, CAC (a surrogate for atherosclerotic disease) progression, clinical CHD, and total mortality in a single long-term study.

Of the behavioral variables, smoking avoidance was the one associated with the greatest reduction in risk of CHD and death. The stronger association with all-cause mortality rather than CHD events suggests the importance of lifestyle in both cardiac and non-cardiac disease processes (ie, cancer). Notably, the benefits were cumulative, meaning the more healthy behaviors the better.

Most important, this study demonstrates the importance of managing risk factors (overweight, sedentary lifestyle, smoking) in modifying the natural history of atherosclerotic heart disease.

Reference:
