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Article Report

Adherence to a Healthy Lifestyle is Associated With a Lower Risk of Diverticulitis among Men

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Abstract

Objectives:

Diverticulitis is a common disease with high clinical burden. We evaluated the joint contribution of multiple lifestyle factors to risks of incident diverticulitis. We also estimated the proportion of diverticulitis preventable by lifestyle modifications.

Methods:

We prospectively examined the association between lifestyle factors (red meat, dietary fiber intake, vigorous physical activity (activity with metabolic equivalent ≥ 6), body mass index (BMI), and smoking) and risk of diverticulitis among participants in the Health Professionals Follow-Up Study.

Results:

We documented 907 incident cases of diverticulitis during 757,791 person-years. High intake of red meat, low intake of dietary fiber, low vigorous physical activity, high BMI, and smoking were independently associated with increased risks of diverticulitis (all $P < 0.05$). Low-risk lifestyle was defined as average red meat intake < 51 g per day, dietary fiber intake in the top 40% of the cohort (about 23 g per day), vigorous physical activity in the highest 50% among participants with non-zero vigorous physical activity (roughly 2 h of exercise weekly), normal BMI between 18.5–24.9 kg m⁻², and never-smoker. There was an inverse linear relationship between number of low-risk lifestyle factors and diverticulitis incidence (P for trend < 0.001). Compared with men with no low-risk lifestyle factors, the multivariable relative risks of diverticulitis were 0.71 (95% confidence interval (CI): 0.59–0.87) for men with 1 low-risk lifestyle factor; 0.66 (95% CI: 0.55–0.81) for 2 low-risk factors; 0.50 (95% CI: 0.40–0.62) for 3 low-risk factors; 0.47 (95% CI: 0.35–0.62) for 4 low-risk factors, and 0.27 (95% CI: 0.15–0.48) for 5 low-risk factors. Adherence to a low-risk lifestyle could prevent 50% (95% CI: 20–71%) of incident diverticulitis.

Conclusions:

Adherence to a low-risk lifestyle is associated with reduced incidence of diverticulitis.

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Competing interests

Gurantor of the article: Andrew T. Chan, MD, MPH.

Specific author contributions: Drs Liu, Cao, and Chan had full access to all of the data in the study, and take responsibility for the integrity of the data and the accuracy of the data analysis. Study concept and design: P.H.L., Y.C., L.L.S., E.L.G., and A.T.C. Acquisition of data: L.L.S., B.R.K., I.T., and A.T.C. Analysis and interpretation of data: all coauthors. Drafting of the manuscript: P.H.L. Critical revision of the manuscript for important intellectual content: all coauthors. Statistical analysis: P.H.L. and Y.C. Obtained funding: L.L.S., E.L.G., and A.T.C. Administrative, technical, or material support: Y.C., L.L.S., E.L.G., and A.T.C. Study supervision: Y.C., L.L.S., E.L.G., and A.T.C.

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Supplementary information

Word documents

1. Supplementary Information

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