

Cardiovascular disease mortality reduced by Green Tea

Claudiu STOICESCU, PhD Fellow

Cardiology Department, University Hospital of Bucharest, Romania

One of most consumed drinks in the world is tea (green, oolong, or black tea). The green tea polyphenols with their radical scavenging and antioxidant properties have been extensively studied as preventive agents for CVD and cancer, which are the leading causes of mortality. The Japan tradition for tea is known worldwide. Over 80% of the population from Miyagi Prefecture in northeastern Japan drinks tea and more than 25% consume more than 3 cups of tea. A prospective cohort study of more than 40,000 people, during 11 years try to examine the effect of different amounts of daily green tea consumption on all-cause, CVD, and cancer mortality. The population categories were less than 1 cup, 1 to 2 cups, 3 to 4 cups, and more than 5 cups daily. Endpoints were all-cause mortality and cause-specific mortality. All-cause mortality was obtained monthly using national health insurance withdrawal files, and follow-up continued for 11 years.

Compared with participants who drank 5 or more than 5 cups of green tea per day, those who consumed less than 1 cup had a risk for all-cause and CVD mortality of 16% higher (during 11 years of follow-up) and of 26% higher (during 7 years of follow-up), respectively. The

inverse association between green tea consumption, CVD, and all-cause mortality was stronger in women than in men ($P = 0.08$ for interaction with sex). In women, the multivariate hazard ratios (HRs) of CVD mortality across increasing green tea consumption categories (cups/day) were 1.00, 0.84, 0.69, and 0.69, respectively ($P = 0.004$ for trend). In men, green tea consumption was significantly linked with reduced mortality due to stroke, and in women, this protection was especially strong for cerebral infarction. In both men and women, the multivariate HRs for gastric, lung, and colorectal cancer was just above 1 but not statistically significant. There was no protection for all-cause mortality from consumption of black or oolong tea.

In conclusion, this prospective cohort study has shown that consumption of 5 or more cups of green tea daily is associated with reduction in all-cause mortality of 12% for men and 23% for women during 11 years of follow-up and is associated with significant reduction in CVD mortality for men and women, particularly for stroke and cerebral infarction, respectively, but has no association with cancer mortality.

Comment on the paper:

Kuriyama S, Shimazu T, Ohmori K et al – Green Tea Consumption and Mortality Due to Cardiovascular Disease, Cancer, and All Causes in Japan. *JAMA* 2006; 296:1255-1265