The prospective study by Yochum et al. (1) reveals a protective association between intake of flavonoids and risk of death from coronary heart disease (CHD) in postmenopausal women. However, the evidence that flavonoids themselves are protective against CHD has several weaknesses that require further investigation.

The protective association between flavonoids and fatal CHD in the above study was largely due to certain fruits and vegetables, especially broccoli. However, in the multivariate analysis no correction was made for possible confounding by fruit and vegetables. Could it be that flavonoids were merely a surrogate measure of these foods?

A major source of flavonoids is tea. In prospective studies the relative risk (RR) of death from CHD when comparing the highest and lowest consumers of tea has been reported as 0.89 (1), 0.45 (2), 1.6 (3), and 2.3 (4). Such large discrepancies clearly make it impossible to draw any conclusions.

In only one study does the evidence clearly indicate that total intake of flavonoids protects against CHD. Knekt et al. (5), in Finland, reported a relative risk of approximately 0.69; the sample size was large (470 cases of fatal CHD) and the data were adjusted for vitamin C and beta-carotene (which corrects to a large extent for confounding by fruits and vegetables). The study by Rimm et al. (3) in the United States reported a protective association for fatal CHD (RR = 0.77, not significant; adjusted for carotene but not vitamin C) but saw no such association with nonfatal myocardial infarction.

The study by Hertog et al. (4) in Wales observed that the relative risk (RR) of death from CHD when comparing the highest and lowest consumers of tea has been reported as 0.89 (1), 0.45 (2), 1.6 (3), and 2.3 (4). Such large discrepancies clearly make it impossible to draw any conclusions.

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