RISK FACTORS

Kidney stones associated with increased CHD risk in women

A prospective study of >240,000 people has shown that women with a history of kidney stones are at increased risk of coronary heart disease (CHD). The association was not, however, apparent for men.

Ferraro *et al.* analyzed data from three large cohort studies—the Health Professionals Follow-Up Study (HPFS; men aged 40–75 years), the Nurses' Health Study I (NHS I; women aged 30–55 years), and the NHS II (women aged 25–42 years). Participants were asked to report a history of kidney stones on enrollment, and in subsequent biennial questionnaires. Self-reporting of kidney stones was reliable, with diagnosis confirmed in 97% of cases.

Of the 242,105 participants (196,357 women and 45,748 men), 19,678 reported a history of kidney stones (8.1%). During follow-up (median for HPFS: 9.8 years, NHS I: 8.2 years, and NHS II: 8.9 years), 16,838 CHD events occurred.

Multivariate analysis revealed a significant association between kidney stones and CHD in the NHS I (HR 1.18, 95% CI 1.08–1.28) and NHS II (HR 1.48, 95% CI 1.23–1.78) cohorts, but not in the HPFS population. The risk of myocardial infarction and revascularization was also increased in participants of the NHS I and II with a history of kidney stones, but not in the male HPFS cohort.

The investigators speculate that the association between kidney stones and CHD could be related to common (and possibly unknown) risk factors, impaired calcium metabolism, dietary factors, or poor kidney function. However, the difference between men and women could not be explained.

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Original article Ferraro, P. M. *et al.* History of kidney stones and the risk of coronary heart disease. *JAMA* 310, 408–415 (2013)