

Chronic Kidney Disease Is Associated with Subsequent Coronary Disease

Excess risk was significant for people with CKD at any stage.

End-stage renal disease is associated with excess cardiovascular mortality. In this prospective population-based Icelandic study that involved nearly 17,000 adults (age range, 33–81) without vascular disease, investigators determined the associations between stage of chronic kidney disease (CKD) and coronary heart disease outcomes (nonfatal myocardial infarction, coronary death, and coronary revascularization), stroke, and nonvascular mortality.

At study entry, 1210 participants (7%) had CKD. During a median follow-up of 24 years, and after adjustment for multiple confounders, participants with CKD had 45% higher overall risk for adverse coronary outcomes than did patients without CKD. Depending on glomerular filtration rate and proteinuria status, relative increases in coronary risk among CKD patients ranged from 39% to 329%. Participants with CKD did not have higher risk for stroke, but those with stage 3b and stage 4 CKD had 82% and 497% higher risks, respectively, for nonvascular mortality than did participants without CKD.

Comment: CKD, even in its early stages, is associated with subsequent adverse coronary events. However, whether impaired kidney function causes coronary disease or is a marker of excess coronary risk is unknown. Further studies of the associations between CKD and coronary disease (as well as between CKD and nonvascular mortality) are warranted.

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