

Poor kidney function linked to future heart and brain problems

September 30 2010

People with impaired kidney function are at a higher risk of future stroke than people with normal kidney function, concludes a study published in the British Medical Journal today.

A second study, also published today, finds that even the earliest stages of chronic kidney disease are linked to a higher risk of coronary heart disease.

This study suggests that considering signs of early kidney disease, in addition to routinely measured risk factors such as blood pressure and [blood cholesterol](#), modestly improves the identification of people at high risk of cardiovascular disease. It provides about half as much predictive gain as did history of diabetes or about a sixth as much as did history of smoking.

Doctors already know that chronic kidney disease and cardiovascular disease are linked. However, kidney disease often goes undiagnosed, because it is largely without symptoms, and the impact of kidney function on stroke is still unclear.

So, in the first study, researchers from Taiwan and the USA investigated the link between low glomerular filtration rate or GFR (the flow rate of fluid filtering through the kidneys) and risk of future stroke.

They analysed the results of 33 studies involving over 280,000 individuals and found that people with an estimated glomerular filtration

rate (eGFR) of less than 60 ml/min/1.73m² (the normal range is 100-130 ml/min/1.73m²) had a 43% greater risk of future stroke than people with a normal eGFR.

They also found that Asian people with a low eGFR were at higher risk of future stroke than their non-Asian counterparts.

Based on these findings, they conclude that a low eGFR should be seen as a marker for increased stroke risk, prompting doctors to start risk reduction strategies, such as blood pressure control and use of cholesterol lowering drugs, to avert future strokes, particularly in people of Asian race.

In the second study, UK and Icelandic researchers tracked 16,958 people living in Reykjavik over 24 years and found that even the earliest stages of chronic kidney disease were at increased risk of developing coronary heart disease.

They found that assessment of chronic kidney disease in addition to conventional risk factors modestly improved coronary heart disease risk prediction. It provided about half as much predictive gain as did history of diabetes or about a sixth as much as did history of smoking.

The researchers also found a suggestive association between chronic kidney disease and increased risk of death from causes other than cardiovascular disease or cancer, recommending the need for further studies to investigate this link in more detail.

These findings are supported in an accompanying editorial, which says that the presence of [chronic kidney disease](#) should act as a "red flag" that triggers cardiovascular risk assessment and implementation of appropriate preventive strategies already shown to be effective in the general population.

Provided by British Medical Journal

Citation: Poor kidney function linked to future heart and brain problems (2010, September 30)
retrieved 4 May 2024 from

<https://medicalxpress.com/news/2010-09-poor-kidney-function-linked-future.html>

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