

Screening for abdominal aortic aneurysms indicated

February 24 2012

Population-based screening for often fatal abdominal aortic aneurysms (AAAs) should be given serious consideration, according to a new study from the University of Otago, Wellington.

The study, just published in the *New Zealand Medical Journal*, says AAA [screening](#) using ultrasound scans is an excellent tool, elective repair is an effective treatment, and it appears to be cost-effective.

A combined analysis of four large international trials also shows a 40% reduction in AAA-related mortality with [population](#) screening.

AAAs are enlargements of the abdominal aorta, present in 5-10% of men between 65 and 79 years and their likelihood increases with age. They can expand silently until sudden rupture, which carries a very high mortality of 80- 90%.

“There were about 240 AAA deaths between 2002 and 2006 based on mortality and hospital data, the vast majority in males over 65 years,” says lead researcher Dr Nisha Nair.

Detection of AAAs before rupture by abdominal ultrasound scans allows elective repair, which has a much lower mortality of up to 10%.

“Both the UK and USA have begun population screening in the last few years, largely in response to international randomised controlled trials that show a benefit,” says Dr Nair.

“There’s no AAA screening policy, in New Zealand, and detection here is largely incidental or opportunistic.”

The National Health Committee (NHC) uses eight criteria by which potential screening programmes can be evaluated. Dr Nair says AAA is a condition that does relatively well by these criteria. AAA screening fulfils five out of eight screening criteria. Research is needed to further inform the remaining three.

The study points out two key issues for AAA screening. First for many people who have an AAA, it may never cause problems during their lifetime if it does not rupture, therefore screening is likely to mean some people have what is unnecessary surgery. Second, balancing the risk of rupture against the risk of death from elective repair (about 5-10%) is a key issue says Dr Nair.

“Elective repair, although it has a [mortality](#) rate six times lower than emergency repair, is still major surgery. Its risk increases with age and if the individual has other medical problems.

Advanced age and other illness are both characteristics of the typical AAA patient.”

Another concern is the capacity of the health system to sustain the entire screening pathway, from uptake and diagnosis through to repair and follow-up.

Further work is required to assess how common undiagnosed AAA is in New Zealand and evaluate the health profile of people with AAA.

Investigating the acceptability of AAA screening to the New Zealand public, particularly for groups, such as Maori, that are not served as well by current screening programmes is also important says Dr Nair.

Provided by University of Otago

Citation: Screening for abdominal aortic aneurysms indicated (2012, February 24) retrieved 5 May 2024 from <https://medicalxpress.com/news/2012-02-screening-abdominal-aortic-aneurysms.html>

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