Significance Of Infrarenal Aortas Measuring 25-29 mm
They Will Likely Become Aneurysmal And They Require Follow-Up: At What Intervals?

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A general AAA screening program targeting 65-year old men
Gradually introduced 2006 - 2015

- Attendance 84%
- Prevalence 1.5%
- Periop. mortality 0.9%

Stepped wedge cluster randomized trial design
Wanhainen A et al. Circulation 2016

- 2049 AAA deaths
- 3,044,952 person-year
- 67 AAA-death/100,000

- 2080 AAA deaths
- 4,035,563 person-year
- 51 AAA-death/100,000

- 25% AAA deaths among men >65 years

AAA deaths per 100,000 men >65 years
counties screened mean 7.1 years vs. counties screened mean 1.5 years

-27%

Risk of progression to rupture
MASS long-term follow-up

Final follow-up of the Multicentre Aneurysm Screening Study (MASS) randomized trial of abdominal aortic aneurysm screening

Most were 25-29 mm at age 65 year
Risk of progression to ≥55mm AAA

Policy on 2.5–2.9cm aortic diameters
"sub-aneurysm" or "aneurysm-in-formation"

The question is not if they become an aneurysm, but whether or not it becomes clinically relevant?

Risk of progression of sub-aneurysms
Uppsala experience

Risk of progression to ≥55mm AAA
Gloucestershire experience

Conclusions

- Sub-aneurysmal aortas (25-29mm) are at high risk for progression to an AAA, which are likely to become clinically relevant (within 10 years)
- For this reason, these patients should be offered a rescan after 5-10 years, if they have a sufficiently long life expectancy
- In Sweden 1.9% of 65 year old men have an AAA
- Another 2.0% have an aortic diameter 25-29 mm, and they live a mean of 20 more years
- Thus, in preventing rupture in these 2% the potential to further improve the effectiveness of the AAA screening programs