

INVITED COMMENTARY

Screening for Cardiovascular Disease. Too Early and Too Late?

Mark J.W. Koelemay

Amsterdam UMC, University of Amsterdam, Amsterdam Cardiovascular Sciences, Department of Surgery, Meibergdreef 9, 1105AZ Amsterdam, the Netherlands

The Viborg Vascular (VIVA) randomised controlled trial described a population screening program for abdominal aortic aneurysm (AAA), peripheral arterial disease (PAD), and hypertension, and provided subsequent lifestyle advice and recommendations for medical and interventional treatment in men aged 65–74 years.¹ Some 50,156 men participated in VIVA, and a significant reduction in all cause mortality was found from 10.8% in the control group to 10.2% in the intervention group after a mean follow up of 4.4 years. The cardiovascular related mortality was 4.47% in the control group and 4.24% in the intervention group, a non-significant (n.s.) difference of 0.23%. The AAA related mortality was 0.16% in the control group and 0.10% in the screened group (n.s) despite more elective AAA repairs (101 in controls and 240 in screened subjects).

In this issue of *European Journal of Vascular and Endovascular Surgery*, Qvist et al. report in a VIVA substudy, that 60% of men with screen detected AAA or PAD indeed started antiplatelet and statin therapy prescribed after the diagnosis, and that 60% of these patients adhered to these drugs during five years of follow up.² When combining those who never fulfilled the prescription and those who quit, only 40% of new cases used preventive medication after five years. Some 65% of patients with newly detected AAA or PAD were already on antiplatelet therapy and statins before screening, and their adherence after five years was higher than 80%. In this meticulous analysis there were no important predictors of adherence in drug naive patients, whereas in patients who already used secondary prevention adherence was highest in those with a history of myocardial infarction and statin use.

The concept of population screening is to find cases with asymptomatic atherosclerosis and modify risk factors to reduce cardiovascular mortality and morbidity. However, the added value of population screening is unclear here, as

in VIVA two thirds of the subjects with screen detected AAA or PAD were already taking secondary prevention and were highly compliant. Moreover, many subjects aged >65 years have a risk profile for cardiovascular disease that already warrants secondary prevention. One may speculate that the observed difference in cardiovascular mortality would have been higher if more newly detected cases had taken secondary prevention. There is certainly a case for improving compliance, especially with statins, which lower the annual risk of cardiovascular death from 1.50% to 1.32% for each mmol/L reduction of LDL cholesterol.³ Unfortunately, most subjects in the VIVA trial stopped taking statins more often than antiplatelet therapy, which has a lower or even absent benefit in subjects with a low risk of cardiovascular disease.⁴

The catch with population screening is that it might be that subjects with asymptomatic atherosclerosis do not feel the urgency to take preventive drugs, and that for them screening comes too early. For patients who have had a cardiovascular event screening has definitely come too late.

REFERENCES

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