Elderly patients with coronary artery disease: Is pravastatin an answer?


**Background:** An elevated blood cholesterol level is a significant risk factor for coronary artery disease (CAD). Clinical trials have shown that lipid-lowering treatment with statins is effective in the secondary prevention of coronary events and in preventing death among patients with elevated and average events and in preventing death among secondary prevention of coronary treatment with statins is effective in the trials have shown that lipid-lowering therapy.

In the current subgroup analysis of patients aged 65 to 75 years, the primary end-point was a composite of death from CAD or nonfatal myocardial infarction. Secondary end-points included death from CAD and death from any cause. All analyses were performed on an intention-to-treat basis.

**Results:** Of the 9014 patients enrolled in the original trial, 3514 were aged between 65 and 75 years at study entry. Of those, 1741 patients received pravastatin and 1773 placebo. Most (80%) of the patients were men; 60% had a history of myocardial infarction, and 40% unstable angina. ASA was taken by 79%, β-blockers by 45% and angiotensin-converting-enzyme inhibitors by 19%. The initial median lipid levels were as follows: total cholesterol 5.6 mmol/L, low-density lipoprotein (LDL) 3.8 mmol/L, high-density lipoprotein (HDL) 0.9 mmol/L, triglycerides 1.5 mmol/L and total cholesterol:HDL ratio 5.9.

The mean length of follow-up was 6.1 years. Pravastatin was well tolerated and improved the average total cholesterol (−19%), LDL (−28%), HDL (+7%) and triglyceride (−11%) levels. For the primary end-point (death from CAD or nonfatal myocardial infarction), there was an absolute risk reduction with pravastatin of 4.7%, for a number needed to treat (NNT) of 21 (95% confidence interval [CI] 17–31). Pravastatin also reduced the incidence of secondary end-points, with an NNT of 35 (95% CI 24–67) to prevent 1 death from CAD and an NNT of 22 (95% CI 17–36) to prevent 1 death from any cause. Thus, for every 1000 patients with CAD between 65 and 75 years of age, pravastatin treatment is predicted to prevent 45 deaths. The benefit from pravastatin among the elderly patients in this analysis actually appeared greater than that observed among the younger cohort.

**Commentary:** This elderly subgroup with CAD and average lipid levels likely benefitted from pravastatin therapy because they were at higher risk of major cardiovascular events than the younger cohort. Whether this logic might extend to patients older than 75 years is unknown, given their shorter life expectancy and greater prevalence of other diseases. This study did not include patients without CAD, so the potential role of statins for primary prevention in elderly patients remains unclear.

**Practice implications:** Lipid-lowering therapy for the secondary prevention of major cardiovascular events and death should not be withheld from elderly patients simply because of their age. Usual precautions need to be followed when using statins, especially in light of recent concerns over rhabdomyolysis and death associated with cerivastatin.

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**References**


