Statin therapy is associated with reduced mortality across all age groups of individuals with significant coronary disease, including very elderly patients*1


* LDS Hospital, Salt Lake City, Utah, USA
† University of Utah, Salt Lake City, Utah, USA

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Abstract

Objectives

This study evaluated the effect of statin therapy on mortality in individuals with significant coronary artery disease (CAD) stratified by age.

Background

Hydroxymethylglutaryl coenzyme A reductase inhibitors (statins) significantly reduce morbidity and mortality in individuals with CAD. Unfortunately, the large statin trials excluded individuals over 80 years old, and it is therefore unknown whether very elderly individuals benefit from statins as do younger individuals.

Methods

A cohort of 7,220 individuals with angiographically defined significant CAD (≥70%) was included. Statin prescription was determined at hospital discharge. Patients were followed up for 3.3 ± 1.8 years (maximum 6.8). Patients were grouped by age (<65, 65 to 79, and ≥80 years) to determine whether statin therapy reduced mortality in an age-dependent manner.
Results

Average age was 65 ± 12 years; 74% were male; and 31% had a postmyocardial infarction status. Overall mortality was 16%. Elderly patients were significantly less likely to receive statins than younger patients (≥80 years: 19.8%; 65 to 79 years: 21.1%; <65 years: 28.0%; p < 0.001). Mortality was decreased among statin recipients in all age groups: ≥80 years: 29.5% among patients not taking a statin versus 8.5% of those taking a statin (adjusted hazard ratio [HR] 0.50, P = 0.036); 65 to 79 years: 18.7% vs. 6.0% (HR 0.56, p < 0.001); and <65 years: 8.9% vs. 3.1% (HR 0.70, P = 0.097).

Conclusions

Statin therapy is associated with reduced mortality in all age groups of individuals with significant CAD, including very elderly individuals. Although older patients were less likely to receive statin therapy, they received a greater absolute risk reduction than younger individuals. More aggressive statin use after CAD diagnosis may be indicated, even in older patients.

Abbreviations: CABG; coronary artery bypass graft surgery; CAD; coronary artery disease; CHF; congestive heart failure; CI; confidence interval; CK-MB; creatine kinase-MB fraction; HR; hazard ratio; MI; myocardial infarction; PCI; percutaneous coronary intervention