Abstract: P822

Statin treatment in symptomatic patients with non-obstructive coronary artery disease reduces the risk of all-cause mortality

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Introduction: Symptomatic patients with non-obstructive coronary artery disease (NOCAD; stenosis >0% <50%) have a worse prognosis and an increased risk for all-cause mortality compared with age-matched controls. Currently, treatment of these patients is empiric, and secondary preventive measures are less often implemented. The goal of the study was to examine whether statin prescription has an impact on all-cause mortality in symptomatic NOCAD patients, and which factors influence statin prescription in patients with NOCAD.

Methods: We examined 4039 symptomatic patients who presented either with stable angina (SA) or an acute coronary syndrome (ACS) who underwent coronary angiography; 1582 had angiographically normal coronary arteries, 2457 had minimal disease (NOCAD). The comparison group consisted of 2998 patients with stable obstructive CAD (stenosis =50%). Patients had at least one lipid panel tested between April 1, 2010 to March 31, 2014. We examined the rate of statin prescription amongst the groups, as well as predictors of all-cause mortality and statin treatment.

Results: Symptomatic patients with NOCAD are less likely to receive statin therapy (60.4%) compared to patients with obstructive CAD (87.3%). After one, three and five year(s), LDL levels in NOCAD patients are higher than in CAD patients (2.21±0.88mmol/l vs. 1.84mmol/l=0.77mmol/l after 1 year). Statin treatment was associated with a significantly lower risk of all-cause mortality in NOCAD (HR 0.64 (0.44-0.95)), as well as in CAD (HR 0.44 (0.31-0.62)), but not in patients with normal coronaries HR 0.55 (0.27-1.15)). Sex, age and the presence of other cardiovascular risk factors influenced the prescription of statin therapy in the first 5 years after initial diagnosis of NOCAD- older patients with diabetes and hypertension were more likely to receive statin therapy. Women received statin therapy to a lower percentage than men in the NOCAD group (year 1: men 62.9% vs, women 56.9%; p=0.003). No effect of cardiovascular risk factors, age or sex on statin prescription was seen in the CAD group or patients with normal coronaries.

Conclusion: Statin therapy reduces the risk of all-cause mortality in symptomatic patients with NOCAD. In spite of this benefit, patients with NOCAD, and especially women, are less likely to receive secondary-preventive statin therapy.