



HDL cholesterol and acute coronary syndromes

Data reported at the European Society of Cardiology Annual Congress, Vienna 2007 show that prognosis after an acute coronary syndrome (ACS) is worse in patients with low HDL cholesterol levels.¹

In a prospective study, HDL cholesterol was measured within 24 hours of admission for ACS in 944 patients; 439 had low HDL cholesterol (<40 mg/dL in men, <45 mg/dL in women, mean 33±6 mg/dL) and 505 had high HDL cholesterol (≥40 mg/dL in men, ≥45 mg/dL in women, mean 51±10 mg/dL).

In the low HDL cholesterol group, there was a higher prevalence of diabetes (30.8% vs. 20.6%, $p<0.001$), prior myocardial infarction (20.5% vs. 13.1%, $p=0.003$), renal insufficiency (estimated glomerular filtration rate <60 ml/min/1.73 m²; 25.6% vs. 16.9%, $p<0.001$), higher body mass index ($p=0.018$), higher triglyceride levels (165 vs. 126 mg/dL, $p<0.001$), lower total cholesterol levels (177 vs. 193 mg/dL, $p<0.001$), and lower LDL cholesterol levels (111 vs. 117 mg/dL, $p=0.012$). There were no differences between the two groups regarding other factors including age (64±13 vs. 65±13 years, $p=0.26$), current use of statins on admission (25.1% vs. 23.0%, $p=0.49$), or use of cardiac catheterization (64.8% vs. 66.0%, $p=0.71$).

Mortality at 30 days and 6 months were similar in the low and in the high HDL cholesterol groups (30 days: 5.2% vs. 5.8%, $p=0.71$; 6 months: 9.8% vs. 9.6%, $p=0.93$, respectively). However, low HDL cholesterol at baseline was associated with increased rates of the composite end point of death, myocardial infarction, and recurrent myocardial ischemia at 6 months (24.3% vs. 18.6%; OR 1.41, 95% CI 1.01-1.96, $p=0.037$).

The researchers concluded that as low HDL cholesterol has an impact on prognosis after ACS, the benefit of additional strategies to increase HDL cholesterol in these patients should be assessed.

Reference

1. Nabais-Araujo S, Rocha S, Costa J et al. Relationship of high-density lipoprotein cholesterol and outcomes in patients with acute coronary syndromes. *Eur Heart J* 2007;28(Abstract suppl):18-19. Abstract 322.