



High HDL cholesterol improves outcome following drug-eluting stent implantation

High levels of high-density lipoprotein (HDL) cholesterol are protective against major adverse cardiac events within one year of drug-eluting stent (DES) implantation, irrespective of levels of low-density lipoprotein (LDL) cholesterol, according to data presented at AHA by researchers from the Washington Hospital Center, Washington DC, USA.¹ Based on these findings, the researchers emphasised the importance of raising HDL cholesterol, in addition to LDL cholesterol, in this setting.

Data from a total of 1,815 patients who had undergone DES implantation were analysed. Patients were categorised on the basis of LDL and HDL cholesterol values. High LDL cholesterol was defined as ≥ 100 mg/dL and high HDL cholesterol was defined as ≥ 40 mg/dL in men and ≥ 45 mg/dL in women. Endpoints included death, Q-wave myocardial infarction, target vessel revascularisation, and a composite of these events (major adverse cardiac events). Statin use was similar among patients with high or low LDL and/or HDL cholesterol, with about 98% of patients on treatment.

Multivariate analysis showed that high HDL cholesterol was protective against major adverse cardiac events, death and target vessel revascularisation at one year in patients with high LDL cholesterol, and was also protective against death at one year in patients with low LDL cholesterol values (Table).

Table. Results of the multivariate analysis

High LDL: Low HDL vs. high HDL	Hazard ratio (95% CI)	p-value
MACE	0.58 (0.40 to 0.85)	0.005
Death	0.38 (0.18 to 0.84)	0.016
TVR	0.64 (0.40 to 1.01)	0.057
Low LDL: Low HDL vs. high HDL	Hazard ratio (95% CI)	p-value
MACE	0.73 (0.53 to 1.02)	0.064
Death	0.55 (0.33 to 0.90)	0.018

MACE: major adverse cardiac events; TVR: target vessel revascularisation

The authors concluded that raising HDL cholesterol has additional benefit in protecting against recurrent cardiovascular events and death, irrespective of LDL cholesterol values. Clinicians should consider appropriate HDL cholesterol raising therapy in these patients.

Reference

1. Smith K, Brewer B. High high density lipoprotein is protective against recurrent cardiovascular events regardless of the low density lipoprotein levels in patients undergoing percutaneous intervention with drug-eluting stents. Presented at the American Heart Association Scientific Sessions 2006, Abstract 1343.