Aggressive lowering of LDL-cholesterol preferable?

More aggressive, compared with more modest, LDL-cholesterol lowering is associated with greater regression of atherosclerosis and, therefore, may provide enhanced reduction in clinical coronary event rates, according to US-based researchers.[1]

This study involved 161 patients with hyperlipidaemia that met National Cholesterol Education Program II criteria for lipid-lowering therapy, who were randomised to receive open-label pravastatin 40 mg/day (n = 82) or atorvastatin 80 mg/day, for 12 months. The predefined primary endpoint of the study was the change in mean common carotid intima-media thickness (CIMT).

As anticipated, atorvastatin, compared with pravastatin, resulted in significantly greater reductions from baseline in total cholesterol, LDL-cholesterol, and triglyceride levels. Final LDL-cholesterol levels were 76 and 110 mg/dl for atorvastatin and pravastatin recipients, respectively. In addition, there was a net regression of mean CIMT in the atorvastatin group during treatment (–0.034mm), whereas mean CIMT was stabilised in the pravastatin group (0.025mm); the between-group difference was significant.

In an accompanying editorial, Dr Prediman Shah from the Burns and Allen Research Institute, Los Angeles, US, comments that '*focusing solely on LDL-C reduction as a means to an end should not distract us from looking for other ways and non-LDL targets for anti-atherogenic intervention*'.[2] Nevertheless, in the meantime, '*all patients at risk for vascular disease or with established vascular disease should be treated with statins regardless of baseline LDL-C levels, preferably using agents with proven benefits at doses with proven clinical efficacy and safety*', concludes Dr Shah.

1. Taylor AJ, et al. ARBITER: arterial biology for the investigation of the treatment effects of reducing cholesterol: a randomized trial comparing the effects of atorvastatin and pravastatin on carotid intima medial thickness. Circulation 106: 2055-2060, 15 Oct 2002.
2. Shah PK. Low-density lipoprotein lowering and atherosclerosis progression: does more mean less? Circulation 106: 2039-2040, 15 Oct 2002.

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