DOES LOW BASELINE LDL-C ACCOUNT FOR THE RESULTS OF AIM HIGH? A SUBGROUP ANALYSIS FROM ARBITER 6-HALTS

ACC Moderated Poster Contributions
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Authors: Allen J. Taylor, Eric Stanek, Todd Villines, Medstar Heart Institute, Washington, DC, USA, Walter Reed National Military Medical Center, Washington, DC, USA

Background: AIM-HIGH found similar rates of CHD events between groups of statin-treated patients randomized to either placebo or niacin. Prior treatment leading to very low levels of baseline LDL-C have been cited as a possible reason for the negative results of the trial.

Methods: We analyzed niacin-treatment patients within the ARBITER 6-HALTS trial results for the relationship between baseline LDL-C and the effect of niacin on carotid intima-media thickness (CIMT) over 14 months during stable statin therapy. Subjects with above (N = 78) and below (N = 76) median levels of LDL-C (82 mg/dL), and those with LDL-C above and below the mean LDL-C in AIM-HIGH (71 mg/dL) were compared with respect to the effect of niacin on mean CIMT.

Results: Subjects with values for baseline LDL-C above and below the median value 82 mg/dL had similar baseline HDL-C, and mean CIMT. During treatment with niacin at doses up to 2000mg/d, the group with higher baseline LDL-C experience a larger reductions in LDL-C (-18 vs. -2%; P = 0.006) and smaller increase in HDL-C (+16 vs. +23%; P = 0.046). Final HDL-C were similar in the 2 groups (49 vs. 50mg/dL). There was no difference observed between groups for the effects on CIMT, with change in mean CIMT in the high and low baseline LDL-C groups of -0.008 ± 0.030 vs. -0.013 ± 0.035 mm (P = 0.30). No bivariate relationship was observed between baseline LDL-C and CIMT change (r = 0.01). Similar results were observed using thresholds of above and below median baseline HDL-C, and the mean AIM-HIGH LDL-C of 71 mg/dL.

Conclusion: When niacin is added to patients on stable statin therapy, the effects of niacin on CIMT are comparable across baseline LDL-C levels, including very low levels of LDL-C below 70-80 mg/dL.