BASELINE VLDL-C IS SIGNIFICANTLY ASSOCIATED WITH TRIGLYCERIDE RESPONSE TO TREATMENT WITH FENOFIBRIC ACID, STATINS, OR THEIR COMBINATION

ACC Poster Contributions
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Background: We hypothesized that triglyceride (TG) reduction by fibrates can be predicted by baseline hepatic production, as estimated by very low-density lipoprotein cholesterol (VLDL-C).

Methods: Data were pooled for 2700 patients from 3 randomized, controlled, 12-week studies in patients with mixed dyslipidemia evaluating fenofibric acid 135 mg + low- or moderate-dose statin (FA + LDS or FA + MDS), and individual therapies. Relationship between TG lowering and baseline VLDL-C was assessed by linear regression; degree of TG reduction was compared in low vs high baseline VLDL-C concentrations based on median value using unpaired, 2-tailed t-test. Diagnostic performance of baseline VLDL-C levels was assessed by receiver operator characteristics (ROC) analysis. Analyses were performed within each treatment group.

Results: There was significant association between baseline VLDL-C and TG reduction with all treatment assignments (r² 0.06-0.13; all p<0.001). TG reduction was ~1.5 - 2 times greater in patients with high baseline VLDL-C (>median [57 mg/dl]) (Figure). ROC-based best cut-point for VLDL-C to predict 20% reduction in TG was 55 mg/dl each for FA + LDS and FA + MDS (AUC of 0.72 and 0.71, respectively). Regardless of baseline VLDL-C, TG reduction was significantly greater with FA + statin vs corresponding-dose statin.

Conclusion: Baseline VLDL-C level is associated with the degree of TG reduction observed in patients with mixed dyslipidemia treated with FA, statins or their combination.