



Niacin/laropiprant plus simvastatin shows additive lipid-modifying effects

Extended-release (ER) niacin/laropiprant co-administered with simvastatin improved overall lipid control in patients with primary hypercholesterolaemia or mixed dyslipidaemia, according to the results of a study presented at the Scientific Sessions of the American Heart Association Annual Meeting, Orlando, November 4-7, 2007.¹

Lowering low-density lipoprotein (LDL) cholesterol is insufficient to prevent most coronary heart disease (CHD) events. Therefore, the combination of niacin (nicotinic acid) and a statin has been proposed to reduce CHD risk. Flushing, the main side effect of niacin therapy, may however limit the long-term acceptability of treatment.

Laropiprant is an antagonist of prostaglandin D₂, which is implicated in the flushing response to niacin. The combination of niacin with laropiprant and a statin may offer improved lipid-modifying efficacy and tolerability.

In this study, 1398 patients completed a 6-8 week washout and 4-week diet/placebo run-in periods before randomisation to daily treatment with ER niacin/laropiprant (1 g/20 mg), simvastatin (10-40 mg), or the combination. After 4 weeks, doses were increased to ER niacin/laropiprant (2 g/40 mg) and simvastatin 40 mg for a further 8 weeks.

After 12 weeks, ER niacin/laropiprant + simvastatin resulted in significant improvement in all lipid parameters compared with either monotherapy (see Table).

Lipid-modifying efficacy (least squares mean % change from baseline at week 12)

Treatment	LDL-C	TG	HDL-C	Non-HDL-C
ER Niacin/L (2 g/40 mg)	-17	-22	+23	-18
Pooled simvastatin (20, 40 mg)	-37	-15	+6	-33
Combination (2 g/40 mg + 40 mg)	-49*	-34*	+27*	-47*

* p<0.001 vs. each monotherapy

The combination treatment was also well tolerated, with an adverse effects profile similar to that observed with ER niacin/laropiprant alone. Overall, 4.8% of patients treated with the combination treatment, 8.7% treated with ER niacin/laropiprant and 0.3% treated with simvastatin discontinued the study due to flushing. There were no cases of creatine kinase elevation > 10 times the upper limit of the reference range in patients treated with the combination (vs. 0.5% in the ER niacin/laropiprant group and 0.3% in the simvastatin monotherapy group). All of these elevations resolved without discontinuing treatment. There were no reports of myopathy or rhabdomyolysis.

The researchers concluded that the combination of ER niacin/laropiprant with a statin offers a well tolerated approach to improving overall lipid control in patients with dyslipidaemia.

Reference

1. Gleim G, Liu N, Thompson-Bell S et al. Lipid-altering efficacy and safety profile of co-administered extended release niacin/laropiprant and simvastatin in patients with dyslipidemia. *Circulation* 2007;116:II_127. Abstract 683.