

論 文 要 旨

**The combination therapy of Fenofibrate and Ezetimibe improved lipid profile
and vascular-function compared with statins in patients with type 2 diabetes**

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Aim: Elevated level of serum triglyceride (TG) is a characteristic of type 2 diabetes. We evaluated the clinical significance of intervention for the serum TG levels in the fasting and postprandial states in patients with type 2 diabetes.

Methods: Fifty patients with type 2 diabetes, treated with statins, were selected and divided into two groups. One group was treated with a combination of fenofibrate and ezetimibe (F/E group) and the other group with statins (statin group) for 12 weeks. The lipoprotein profile of both groups was compared using high-performance liquid chromatography, and the vascular function was assessed using flow-mediated dilation (FMD) at the forearm.

Results: The levels of very low-density lipoprotein (VLDL) cholesterol, malondialdehyde low-density lipoprotein (MDA-LDL), total TG, chylomicron-TG, VLDL-TG, and HDL-TG decreased in the F/E group, whereas those of HDL cholesterol increased. Furthermore, the peak particle size of LDL increased, but that of HDL decreased in the F/E group. The combination treatment significantly improved the FMD. The change in the

cholesterol level in a very small fraction of HDL was a significant independent predictor for determining the improvement of FMD ($p < 0.01$).

Conclusions: Compared with the treatment with statins, the treatment with the combination of fenofibrate and ezetimibe effectively controlled the LDL cholesterol and TG levels, increased the HDL cholesterol level, especially in its small fraction, and improved vascular function of patients with type 2 diabetes.