

Efficacy of Metformin on Postprandial Plasma Triglyceride Concentration by Administration Timing in Patients with Type 2 Diabetes Mellitus: A Randomized Cross-Over Pilot Study

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- A total of 11 patients taking single-dose metformin (500 to 1,000 mg) were recruited in the study.
- The mean bodyweight of patients was 80.6 kg (body mass index 27.9 kg/m²), and the mean non-fasting plasma triglyceride level was 275.9 ± 57.0 mg/dL.
- Compared with postprandial administration, pre-prandial administration of metformin increased satiety without stomach heaviness or heartburn.
- Pre-prandial metformin administration significantly reduced plasma triglyceride level during meal testing without marked exacerbation of gastrointestinal adverse effects.

The present results suggest that a simple change in the timing of metformin administration represents a novel approach for enhancing triglyceride-lowering strategies in patients with type 2 diabetes mellitus and postprandial hypertriglyceridemia.

