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Hemostatic effects of bezafibrate and ω-3 fatty acids in isolated hypertriglyceridemic patients

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Abstract:
This study aimed to compare the effects of ω-3 fatty acids and fibrate treatment on plasma levels and activities of hemostatic risk factors on glucose and lipid metabolism in subjects with isolated hypertriglyceridemia. Seventy-three subjects with elevated triglyceride levels were allocated into one of the following treatment options: bezafibrate (200 mg twice daily), ω-3 fatty acids (1 g twice daily) or placebo. Plasma lipids, glucose homeostasis markers (fasting and 2-h post-glucose load plasma glucose levels and HOMA), as well as plasma levels/activities of fibrinogen, factor VII and PAI-1 were determined at baseline, on the day of randomization, and after 4 and 12 weeks of the treatment. Not only did bezafibrate improve plasma lipids, but it also increased glucose sensitivity and tended to reduce post-glucose loads of plasma glucose. Except for the reduction in plasma triglycerides, ω-3 fatty acids produced no effect on the lipid profile and insulin sensitivity. Both treatment options reduced, to similar extents, plasma levels of fibrinogen and PAI-1 and factor VII coagulant activity. Our study indicates that, although fibrates exhibit more-pronounced metabolic effects than do ω-3 fatty acids, both these treatment options are equipotent in producing a complex beneficial effect on hemostasis in isolated hypertriglyceridemic subjects.

Key words:
fenofibrate, ω-3 fatty acids, hypertriglyceridemia, fibrinogen, factor VII, plasminogen activator inhibitor-1