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The association of TAFI (Thrombin-activatable fibrinolysis inhibitor) with insulin resistance and components of metabolic syndrome in patients with metabolic syndrome

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Abstract: To investigate the association of TAFI with components of metabolic syndrome and insulin resistance in patients with metabolic syndrome. Materials and methods: Patients between 20 and 70 years of age, who met at least 3 of the metabolic syndrome criteria, and had no known coronary artery disease were included in the study. The control group consisted of 20 healthy subjects with demographic characteristics similar to the patients. Fasting blood glucose, HbA1c, lipid profile, insulin, microalbumin, and TAFI Ag levels were investigated in the patients and controls. Insulin resistance was calculated according to the HOMA-IR [(fasting plasma insulin (µIU/mI) x fasting plasma glucose (mmol/L))/22.5] formula. Results: There was a significant difference (P < 0.01) between patients with metabolic syndrome (MS) and healthy individuals with respect to TAFI Ag levels. However, when patients with MS were divided into 2 groups according to HOMA-IR values, an indicator of insulin resistance, no association was detected between the levels of HOMA-IR and TAFI Ag. In metabolic syndrome group, there was a positive correlation only between the triglyceride and plasma TAFI Ag levels (P < 0.05). Conclusion: These findings suggest that increased TAFI levels in metabolic syndrome may contribute to prothrombotic state and impaired fibrinolysis, and that hypertriglyceridemia may play part in this process.

Key words: Metabolic syndrome, TAFI, insulin resistance

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