Interplay of Vascular Phenotype and Metabolic Phenotype in Populations With or Without Type 2 Diabetes

To the Editor:

Recently, Dr Sourij and colleagues concluded that insulin resistance is one of the main factors for carotid atherosclerosis measured as intima-media thickness (IMT). There was evidence given in this article that HOMA index rather than Short Insulin Tolerance Test is associated with carotid IMT. HDL has been inversely related to carotid atherosclerosis by the Insulin Resistance Atherosclerosis Study (IRAS). Metabolic syndrome amplifies LDL-related increase of carotid IMT in the general population. Arterial hypertension and increased waist have been also related to carotid IMT.

Dehnavi in his study hypothesized that metabolic syndrome as clinical expression of insulin resistance, as well as low-grade systemic inflammation modify the extent of atherosclerosis in type 2 diabetes (T2DM). The study proved this thesis using sonographic measurements for carotid IMT for vascular phenotype determination. Ethiopathogenesis of carotid artery disease is a result of several factors: hiperinsulinemia, low HDL, high LDL, obesity and arterial hypertension. Individual constellation of metabolic syndrome predicts presence of carotid artery disease in a type 2 diabetes population.

Today there is no doubt that by targeting metabolic risk factors we reduce a global risk of patients with or without type 2 diabetes. Do we still need to estimate HOMA index, or is it necessary to estimate its clinical entity (metabolic syndrome)? What does Dr Sourij’s team mean by this?

Disclosures

None.

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