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TITLE

Effects of Thiazolidinediones (TZDs) on Vascular endothelial function in patients with Type-2 Diabetes treated with oral agents or insulin

Katerina Papathanassiou

Ioannina University Hospital, Department of Endocrinology, Greece

Patients with type 2 diabetes have an increased incidence of cardiovascular disease (CVD), which is the major cause of their morbidity and mortality. CVD also demonstrates a more rapid progression in those patients, compared with non-diabetics and a substantially worse prognosis after a CV event. Endothelial dysfunction, which is defined as loss of NO bioavailability, is the earliest detectable abnormality of cardiovascular health and has been associated with insulin resistance in DM2 patients. Endothelial dysfunction precedes overt vascular disease by years and correlates with the presence of coronary artery endothelial dysfunction and angiographically proven coronary artery disease, so it represents an independent predictor of cardiovascular events. It has been suggested that reduction in insulin resis¬tance might improve endothelial function and cardiovascular prognosis in patients with type 2 diabetes. The function of the endothelium can be assessed noninvasively using high-frequency ultrasound, to measure the relative change in brachial artery diameter in response to hyperemic flow. Hyperemic flow is induced by upper-arm occlusion for five minutes and results in shear stress and flow-mediated dilation (FMD), which represents an index of nitric oxide bioavailability. FMD is a low-risk procedure with high reproducibility and demonstrates the most widely used method for the assessment of endothelial function. Impaired FMD indicates an early functional abnormality of the arterial system, which correlates with coronary arterial abnormalities and the angiographic extent of CAD. FMD is a very useful tool for the examination of strategies that improve insulin resistance and endothelial function.

Biography

Katerina Papathanassiou has completed her Ph.D at the age of 25 years from Ioannina University and she is now completing her postdoctoral studies in Ioannina University School of Medicine. She also goes on with her studies in “Management of Health Departments” in Open University of Patras. She is a trainee in Endocrinology Department of University Hospital of Ioannina. She has been a teacher in Nurses School of Ioannina. She speaks English and a little German. She has published 3 papers in reputed journals. She was awarded in 9^0 Pan-Hellenic Meeting of Diabetes, Rodos, 2005, 17-20 March.