Diagnostic use of new pathogenic markers of vascular wall lesion in patients with diabetes mellitus

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The aim of the study was to evaluate the possibility of optimizing the diagnosis of diabetic angiopathy by determining serum levels of pro-inflammatory cytokines IL-1β, IL-6 and TNFα. Basal levels of cytokines were measured in groups of patients with type 1 diabetes, type 2 diabetes and in control group patients (arterial hypertension) with ELISA. We found that in the presence of diabetic angiopathy level of pro-inflammatory cytokines was significantly higher than in patients with diabetes in the absence of angiopathy and in the absence of diabetes in «non-diabetic» hypertensive angiopathy (control group). Using the ROC-analysis, we found that the definition of elevated levels of IL-1β was the most effective for estimating the probability of coronary angiopathy (CHD) in diabetic patients (the reference value of 192 pg/ml), TNFα — to assess the probability of the presence of nephropathy (reference value 38 pg/ml) and IL-6 level not exceeding 29 pg/ml, with a probability of 63.5 %, eliminates clinically significant disease of cerebral arteries. (Cytokines and Inflammation. 2014. Vol. 13. № 1. P. 28–33.)

Key words: angiopathy, inflammation, cytokines, pathogenesis.