

Poster presentation

The NO level in young patients with arterial hypertension and metabolic disorders

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The aim of the research work was to study the NO level in patients with the I and II degree of arterial hypertension (AH) and metabolic disorders.

The general research group consists of 75 patients: I group – 20 patients with normal levels of blood pressure (32.5 ± 3.8 years), II group – 27 patients with AH I (34.6 ± 4.6 years), III group – 28 patients with AH II (36.2 ± 3.7 years), with the duration of hypertension from 1 to 10 years.

The NO level was determined by the summary concentration of stable NO metabolites – nitrates and nitrites (CM_{NO}) in plasma (Moshage, 1995, WPI Nitralyzer-II, USA). The lipid spectrum, level of glucose on an empty stomach and tolerance to glucose were studied, anthropometric research was carried out with the definition of mass index and the degree of obesity. The daily monitoring of blood pressure was carried out on the TM-2421 AND monitor. The analysis of the resieved data showed that in the II group of patients the level of CM_{NO} was 40.3% lower, and in the III group of patients it was 96.3% lower, then in the I group patients.

With the increasing of metabolic disorders degree (the combination of dyslipidemia, obesity and breach tolerance to glucose) the level of CM_{NO} decreases and the level of blood pressure increases, so the metabolic disorders degree corresponds the more expressed decrease of NO production and increase of hypertension degree, which show the pathogenetic community of metabolic disorders and arterial hypertension. The decrease of NO production showed the dependence with blood pressure level, which increases with the duration of arterial hypertention.

So, metabolism of vasoactive substance NO in young patients with arterial hypertension depends on the degree and length of arterial hypertension and the degree of metabolic disorders.