

FEATURE AND CORRELATION OF METABOLIC DISTURBANCES IN PATIENT WITH HYPERTENSION L.ZHURAVLOVA, L.BOBRONNIKOVA KHARKIV NATIONAL MEDICAL UNIVERSITY, UKRAINE

L.Zhuravlyova, L.Bobronnikova

Aims: to study the specific of metabolic disturbances in patient with hypertension and body weight's disturbances

Methods: 85 patients (47 male, 38 female, average age $56,8 \pm 4,6$ years) with mild/moderate hypertension (office systolic/diastolic blood pressure (SBP/DBP) $162,3 \pm 2,6 / 94,2 \pm 3,0$ mmHg) were included in study. All patients were done the BP monitoring, anthropometrical investigation, lipids spectrum, C reactive protein (CRP), malonic dialdehyde (MDA), HOMA-index. We divided patients in two groups by body mass index (BMI): I group of patients (n=43) BMI was $32,07 \pm 3,12$ kg/m²; II group (n=42) - $25,07 \pm 4,22$ kg/m².

Results. In I group of patients the content of general cholesterol was on 21% higher in comparison with indexes in II group ($p < 0,01$), content of triglycerides (TG) – on 26% ($p < 0,01$), increase concentration of low density lipoproteins (LDL) – on 28% ($p < 0,01$) decrease concentration of high density lipoproteins (HDL) on 26% ($p < 0,01$). The relationship TG/HDL was more higher in I group of patients (on 30%, $p < 0,01$). HOMA-index was $3,6 \pm 0,4$ and $2,9 \pm 0,7$ properly ($p < 0,05$). The content of CRP in I group of patients was on 46% higher than in II group ($p < 0,01$) and correlated with SBP ($r=0,37$; $p < 0,01$), relationship TG/HDL ($r=0,37$; $p < 0,01$), content of LDL ($r=0,42$; $p < 0,001$) and very low density lipoproteins (VLDL) ($r=0,39$; $p < 0,001$). The content of MDA in blood plasma was increased in both groups, more significant in I group of patients ($0,97 \pm 0,14$ and $0,88 \pm 0,16$ properly; $p < 0,01$) and correlated with SBP ($r=0,41$; $p < 0,01$). The rate of reduction of night SBP correlated with BMI ($r=0,52$; $p < 0,05$).

Conclusion. The flowing of hypertension in patients with body weight's disturbances gives evidence of more expression disturbances in systemic inflammation and oxidative stress, disturbances of metabolic status, proatherogenic modification of lipoproteins in blood plasma. The received results confirm that in the progressing mechanism of atherogenesis in patients with hypertension and body weight's disturbances the basis was not so much raised level BP, but also appreciably changes of a system metabolism.