

THE PECULIARITIES OF CHANGES OF PULSE PRESSURE AND CIRCADIAN BLOOD PRESSURE PROFILE IN PATIENTS WITH ARTERIAL HYPERTENSION

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Purpose: to define the peculiarities of pulse pressure (PP) changes depending on circadian blood pressure (BP) profile in patients with arterial hypertension (AH).

Methods. 184 patients with AH stage II were examined. Among them were 90 males and 94 females, mean age - $56,8 \pm 4,3$ years. The mean duration of AH was $12,4 \pm 5,2$ years. There were 98 patients with AH grade 2 and 86 patients with AH grade 3. 24-hr ambulatory BP monitoring was done to all patients. Depending on the degree of BP reduction two groups of patients were identified: «dipper» - group 1, 96 patients with sufficient BP reduction and «non-dipper» - group 2, 88 patients with inadequate BP reduction.

Results. There was a significant difference between daily mean systolic pressure (DMSP) and daily mean diastolic pressure (DMDP) in the 1st and 2nd groups of patients: DMSP $138,46 \pm 10,74$ mm Hg and $167,66 \pm 11,52$ mm Hg ($p < 0,01$) respectively; DMDP $72,83 \pm 10,42$ mm Hg and $98,74 \pm 11,28$ mm Hg ($p < 0,01$) respectively. The indexes of circadian PP were significantly higher in group 2 rather than in group 1: $69,42 \pm 12,48$ mm Hg and $50,68 \pm 10,64$ mm Hg ($p < 0,01$) respectively. Moreover, the level of PP in the daytime was significantly higher in group 2 than in group 1: $66,72 \pm 10,64$ mm Hg and $51,28 \pm 10,36$ mm Hg ($p < 0,01$) respectively; it decreased insufficiently at nighttime and remained significantly higher than in group 1: $64,52 \pm 9,28$ mm Hg; $45,53 \pm 8,22$ mmHg; ($p < 0,01$).

Conclusions. The indexes of PP during the daytime and nighttime are significantly higher in patients with AH and inadequate BP reduction than in patients with a sufficient BP reduction. High PP in patients with inadequate daily BP reduction may be a marker of worse AH prognosis, progression of target organ damage and increased cardiovascular risk.