

## **The prognostic value of mitral regurgitation degree for the changes of daily profile of blood pressure in patients with arterial hypertension**

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The purpose of the research was to evaluate the influence of mitral regurgitation degree on changes of profile of daily blood pressure monitoring (DBPM) in patients with arterial hypertension (AH).

Methods. 82 patients with arterial hypertension of 2<sup>nd</sup> stage and hypertrophy of left ventricle myocardium were examined (39 men and 43 women, mean age  $54,8 \pm 4,5$  years, duration of AH  $8,6 \pm 4,2$  years). All patients were taking antihypertensive drugs. The comparative analysis of hemodynamic indexes of patients with MR I (MR-I), and MR II (MR-II) was performed. The peculiarities of DBPM profile changes were studied, depending on MR degree (MR-I - 40 patients, MR-II – 42 patients) provided by heart ultrasonography.

Results. Increase of MR was accompanied with augmentation of office indexes of systolic (SBP) and diastolic (DBP) blood pressure. Changes of SBP were reliable: SBP (mm Hg) in MR-I –  $142,6 \pm 4,4$ ; in MR-II -  $168,2 \pm 4,8$ ; ( $p < 0,05$ ); DBP (mm Hg) in MR-I –  $90,4 \pm 2,8$ ; in MR-II –  $96,8 \pm 5,8$ ; ( $p > 0,05$ ).

However, no changes of average daily SBP and DBP in patients with MR-I and MR-II were found.

Depending on daily profile of BP the ‘non-dipper’ type of AH was prevailing among patients with MR-1 (29 patients, 73%); in case of MR-2 ‘non-dipper’ was found only in 14 patients (33%). The number of ‘dipper’ type patients didn’t depend on degree of MR: in MR-1 group – 8 patients (20%), in MR-2 group – 7 patients (17%). Among patients with MR-2 there were 7 times more ‘night-peakers’ than in MR-1 group (MR-2 – 21 patients, 50%; MR-1 – 3 patients, 7%).

Daily index of BP reliably decreased along with increase of MR degree: MR-1 -  $8,4 \pm 1,8\%$ ; MR-2 –  $3,2 \pm 2,1\%$ ; ( $p < 0,05$ ).

Conclusion. The increase of MR degree in patients with AH unfavorably influences the daily BP profile, worsens the course of AH, increases cardiovascular risk, and decreases life quality of patients.