**Table 1. Clinical and demographic characteristics of the hospitalized hypertensive patients depending on the presence of uncontrolled arterial hypertension**

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| --- | --- | --- | --- |
| **Parameter** | **Patients with target BP (n = 116)** | **Patients with non-target BP (n = 76)** | **P value** |
| Age, Me [Q25%; Q75%], years | 58 [50; 62] | 58 [51; 62] | 0.61 |
| Male gender, % (N) | 38.8 (45) | 28.9 (22) | 0.17 |
| Age above 60 years, % (N) | 38.8 (45) | 36.8 (28) | 0.88 |
| Type 2 diabetes mellitus, % (N) | 3.5 (4) | 31.6 (24) | < 0.001 |
| Smokers, % (N) | 17.2 (20) | 21.1 (16) | 0.57 |
| GFR, Me [Q25%; Q75%], mL/min/1,73 m2 | 77.3 [67.6; 87.3] | 71.2 [59.6; 83.1] | 0.008 |
| BMI, Me [Q25%; Q75%] | 28.4 [24.9; 34.0] | 31.4 [27.5; 35.2] | 0.04 |

BMI, body mass index (kg/m2); BP, blood pressure; GFR, glomerular filtration rate

**Table 2. Nitric oxide synthesis system parameters depending on the stage of arterial hypertension**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Parameter, Me [Q25%; Q75%], mcmol/L** | **Arterial hypertension, stage** | | | **P value** |
| I | II | III |
| ADMA | 0.75 [0.66; 0.78] | 1.14 [0.87; 1.39] | 1.38 [1.22; 1.49] | < 0.0001 |
| SDMA | 0.77 [0.6; 0.93] | 0.84 [0.67; 1.01] | 0.91 [0.70; 1.01] | 0.36 |
| NMMA | 0.27 [0.19; 0.35] | 0.30 [0.19; 0.38] | 0.23 [0.18; 0.28] | 0.16 |
| L-arginine | 40.2 [36.6; 48.6] | 41.3 [37.2; 45.4] | 40.0 [37.6; 42.2] | 0.40 |
| NOx | 23.1 [17.8; 29.7] | 21.2 [17.7; 27.4] | 21.7 [18.5; 26.9] | 0.88 |

ADMA, asymmetric dimethylarginine; NMMA, N-monomethyl-L-arginine; NOx, total nitric oxide; SDMA, symmetric dimethylarginine

**Table 3. Echocardiographical parameters depending on the presence of uncontrolled arterial hypertension**

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| **Parameter, Me [Q25%; Q75%]** | **Patients with target BP (n = 116)** | **Patients with non-target BP (n = 76)** | **P value** |
| End diastolic LV diameter, mm | 46.7 [45.2; 48.2] | 47.9 [46.0; 48.9] | 0.14 |
| End systolic LV diameter, mm | 29.5 [29.0; 30.6] | 31.1 [29.1; 30.9] | 0.17 |
| IVS, mm | 10.2 [9.9; 10.7] | 10.5 [10.2; 11.1] | 0.24 |
| LV myocardial mass index, g/m2 | 100.2 [99.5; 109.0] | 112.0 [101; 111] | 0.06 |
| LV ejection fraction (Biplan), % | 65 [60; 71] | 64 [61; 67] | 0.13 |
| E/A | 1.22 [1.02; 1.38] | 1.05 [0.96; 1.34] | 0.22 |

BP, blood pressure; E/A, the ratio of early diastolic filling maximal blow rate (E) to atrial systolic maximal flow rate (A); IVS, interventricular septum; LV, left ventricle

**Table 4. Nitric oxide synthesis system parameters depending on the presence of uncontrolled arterial hypertension**

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| --- | --- | --- | --- |
| **Parameter, Me [Q25%; Q75%], mcmol/L** | **Patients with target BP** | **Patients with non-target BP** | **P value** |
| ADMA | 1.07 [0.79; 1.34] | 1.25 [0.99; 1.47] | 0.002 |
| SDMA | 0.81 [0.65; 0.92] | 0.93 [0.74; 1.06] | 0.03 |
| NMMA | 0.28 [0.19; 0.38] | 0.28 [0.2; 0.37] | 0.9 |
| L-arginine | 41.3 [37.4; 46.2] | 40.5 [35.6; 44.4] | 0.16 |
| NOx | 21.7 [18.1; 29] | 21.5 [17.1; 26] | 0.4 |

ADMA, asymmetric dimethylarginine; NMMA, N-monomethyl-L-arginine; NOx, total nitric oxide; SDMA, symmetric dimethylarginine

**Table 5. Factors significantly influencing the control of arterial hypertension (multifactor analysis)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Parameter** | **В** | **Mean square error** | **Wald** | **P value** | **Exp (B)** |
| ADMA | 1.889 | 0.544 | 12.075 | 0.001 | 6.614 |
| Type 2 DM | 2.723 | 0.586 | 21.608 | 0.0001 | 15.220 |
| Constant | -2.969 | 0.680 | 19.039 | 0.0001 | 0.051 |

ADMA, asymmetric dimethylarginine; DM, diabetes mellitus