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Selection of antihypertensive drugs from the perspective of clinical pharmacology

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Abstract

Background: The rational use of medicines remains one of the most important directions of public health, especially in socio-medical diseases, including arterial hypertension.

Material and methods: The study involved 28 cardiologists and 84 internists who, based on a set of questionnaires, expressed their opinion on ambulatory treatment of patients with arterial hypertension. Also 21 internists, 6 cardiologists and 6 obstetrician-gynecologists expressed their opinion on treatment of pregnancy-induced hypertension.

Results: Cardiologists and internists recommended angiotensin-converting-enzyme inhibitors (ACE inhibitors) in 28% of cases, diuretics – in 23% of cases, beta-blockers (BB) – in 20, 4% of cases, calcium channel blockers (CCB) – in 13.7% of cases, angiotensin receptor blockers (ARB) – in 13.6% of cases for ambulatory treatment of patients with arterial hypertension. The antihypertensive drugs from other pharmacological groups (with central action, alpha-blockers, arteriodilators, sympatholytics, etc.) were prescribed in only 1.3% of patients. On treatment of hypertension in pregnancy showed that all physicians – 100% recommended as first-line agent for treatment of hypertension during pregnancy centrally acting antihypertensive drug Methyldopa. For second-line treatment they recommended CCB – in 36.36% of cases, alpha-adrenoblockers – in 24.24% of cases, BB – in 21.21% of cases, diuretics – in 12.12% of cases and 3% for ACE inhibitors and ARB. For treatment pre-eclampsia and eclampsia seizures in 84.85% of cases is recommended Magnesium sulfate and 15.15% mention labetalol, hydralazine and sodium nitroprusside.

Conclusions: ACE inhibitors, diuretics, BAB, CCB and ARB have been first-line drugs in the arterial hypertension (AHT) treatment. For treatment of pregnancy-induced hypertension physicians recommended centrally acting antihypertensive drug Methyldopa. For second-line treatment they recommended calcium channel blockers (CCB), alpha-adrenoblockers, beta-blockers (BB) and diuretics. As third-choice in treatment of severe hypertension in preeclampsia are selected direct vasodilators as hydralazine, labetalol, sodium nitroprusside, and the most widely used in preeclampsia and eclampsia remains magnesium sulfate.

Key words: arterial hypertension, antihypertensive drugs, angiotensin-converting-enzyme inhibitors