CRONOPHARMACOLOGICAL ASPECTS THERAPY HYPERTENSION

Lutsenko D.A., Drogovoz S.M.
National University of Pharmacy, Kharkiv, Ukraine
lutsenko d@mail.ru

The latest research in the field of chronobiology, chronopatology and chronopharmacology pharmacists and doctors are pushing to revise the already established treatments of various diseases. One of these diseases is hypertension.

Hypertension is considered as the result of adaptation to stressful situations. The signs of pathological desynchronosis include a high percentage of false rhythm (50%), a significant increase in the area walk acrophase study parameters (more than 6 hours) of synchronization of biorhythms, up to antiphase, the discrepancy biorhythms chronotype patients, rapid changes in the amplitude of the rhythms, complaints permanent headaches, poor sleep, appetite, increased irritability, and sometimes aggressiveness (in hypertensive patients stage II). Studies have shown that the severity of violations of the circadian rhythm of blood pressure (BP) increases with the severity of hypertension.

Research in the last 20 years have shown convincingly that chronotherapy hypertension calcium channel blockers, angiotensin-converting enzyme (ACE), β-blockers, central hypotensive effect of drugs, diuretics and other means allows stable clinical effect at an earlier date, the lower doses of drugs and better portability than their traditional purpose without the circadian rhythm of blood pressure. Thus the study of verapamil, scientists discovered that a single evening reception provides high concentrations in the morning, including reducing rapid increase in blood pressure in the morning, without inducing nocturnal hypotension. In addition, the drug is effective for ischemic heart disease, especially in the morning, when the risk of ischemia is greatest. Verapamil is a well-studied drug in terms chronopharmacology; optimal drug concentration in the blood should be made between 04.12 hours, when there is a maximum increase in blood pressure and heart rate associated with awakening. Under the influence of verapamil is a beneficial effect on the structure of ultradian blood pressure. In the treatment of verapamil hronoskheme comes significant reduction in systolic and diastolic blood pressure at all time periods. Based on the above information, you should pay attention to the need for new regimens of antihypertensive drugs already known to improve its effectiveness and safety.