

## **L-ARGININI HYDROCHLORIDUM IN THE PERIOPERATIVE PERIOD IN PATIENTS WITH CHRONIC KIDNEY DISEASE AND COMORBIDITY (CORONARY ARTERY DISEASE, CHRONIC OBSTRUCTIVE PULMONARY DISEASE)**

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The main features of patients operated on in the urological clinic are the presence of chronic kidney disease and such a severe comorbidity as coronary heart disease and chronic obstructive pulmonary disease. It is known that L-arginini hydrochloridum exhibits antihypoxic, cytoprotective, antioxidant, detoxification, membrane stabilizing effect, plays an important role in the process of neutralizing ammonia, participates in the processes of energy supply of the body, reduces the activation and adhesion of leukocytes and platelets to the vascular endothelium.

Our aim was to study the effect of L-arginini hydrochloridum as additional therapy for urological patients with such comorbidity as both coronary artery disease and chronic obstructive pulmonary disease during the perioperative period.

The study involved 147 patients aged  $67 \pm 8,3$  years who underwent surgery under the regional method of anesthesia. Patients of the main group ( $n=81$ ) were given a pre- and postoperative infusion of L-arginini hydrochloridum 100 ml per day 3 days before the operation and 3 days in the postoperative period with electrocardiography, echocardiography, and blood creatinine level dynamics. Patients that received L-arginini hydrochloridum had more stable state of hemodynamic parameters intraoperatively. Pulmonary hypertension declined by 13,8% compared with the second group ( $p < 0,05$ ). And a tendency to an increase in the left ventricular ejection fraction was noted. There was a more significant reduction of creatinine compared with patients in the control group, from  $268,8 \pm 21,8$  mcmol/l to  $120 \pm 11,3$  mcmol/l and  $274,1 \pm 20,8$  mcmol/l to  $180 \pm 17,4$  mcmol/l respectively ( $p < 0,01$ ).

Using of L-arginini hydrochloridum as additional therapy for urological patients with both coronary artery disease and chronic obstructive pulmonary disease during perioperative period provides more stable hemodynamic during operation and positive dynamics of creatinine level during postoperative follow-up