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## EFFECTIVENESS OF L-ARGININE IN CORRECTION OF ISCHEMIA IN COMPLEX SURGICAL TREATMENT OF PURULENT-NECROTIC COMPLICATIONS OF DIABETIC FOOT SYNDROME

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**The aim of the study:** To develop an optimal method of using L-arginine in the treatment of purulent-necrotic complications of diabetic foot syndrome with endothelial vascular dysfunction accompanied by lower limb ischemia.

**Material and methods:** The work is based on data based on the study of the results of surgical treatment of 272 patients with purulent-necrotic lesions of the lower extremities on the background of diabetes mellitus with pronounced signs of vascular endothelial dysfunction. The first control group consisted of 91 (33.4%) patients with purulent-necrotic lesions of the lower extremities, who underwent a complex of therapeutic measures, including surgical placement, antibacterial therapy, infusion, detoxification therapy, drugs that improve microcirculation angioprotectors, correction of the level of glycemia and symptomatic treatment of concomitant diseases. Local treatment was carried out in the traditional way (ointments on a water-soluble polyethylene glycol (PEG) base - oflomelid). Group II a included 93 (34.2%) patients who, in addition to traditional measures, local treatment, had intravenous infusions of L-arginine once a day to improve microcirculation, reduce endothelial dysfunction of the vessels of the lower extremities, given that this drug it has antihypoxic and antioxidant properties. Group II b included 88 (32.4%) patients who, in addition to traditional measures, local treatment, underwent femoral artery catheterization for long intraarterial infusions of L-arginine for 24-48 hours using a dispenser "aitecs® 2016".

**Results and its discussion:** The use of long-term intra-arterial perfusions of Larginine in complex treatment of patients with purulent-necrotic complications of diabetic foot syndrome with ischemia of the lower extremities led to a sharp decrease in the number of cases of progression of the pathological process and ischemia in the foot, which was observed in only 10.2% of patients at that time they were an





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order of magnitude higher and amounted to 30.7% in patients without the use of this method of complex treatment. Mortality in treated patients was 4.54% and 13.18%, respectively.

## Conclusions.

- 1. The use of long-term intra-arterial therapy with L-arginine perfusion for 24-48 hours in the complex treatment of diabetic foot syndrome with limb ischemia contributes to the resolution of endothelial vascular dysfunction with improvement of reparative processes in the tissues of the affected lower extremities.
- 2. Indications for the use of L-arginine are the presence of pronounced signs of lower limb ischemia, while reliable criteria for assessing the severity of vascular endothelial dysfunction are ET-1, NO, VEGF-A and TGF- $\beta$ .
- 3. The proposed method of using L-arginine in the treatment of diabetic foot syndrome has a high social significance, which consists in improving the results of treatment, improving the quality of life and early recovery of this category of patients.

