The features of the prevention of preeclampsia in pregnant women with gestational endotheliopathy in the first trimester

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Objective. The purpose of our clinical study is to evaluate the clinical effectiveness of L-arginine in the prevention of preeclampsia and reduction of other perinatal risks in patients with preclinical gestational endotheliopathy.

Materials and Methods. A comparative clinical study was performed at the clinical base of National Pirogov Memorial Medical University. 174 pregnant women with preclinical gestational endotheliopathy (GE), approved by laboratory and instrumental research (microalbuminuria and endothelium-dependent vasodilatation) participated in the study. Patients were divided into clinical subgroups: 31 pregnant women with GE in subgroup (A) received acetylsalicylic acid (ASA) at a dose of 75 mg per day, 33 patients with preclinical GE from subgroup (B) received L-arginine at a dose of 4-4.2 g per day. 52 pregnant women with preclinical GE who refused prophylactic treatment were included in the subgroup (C). The clinical effectiveness of the therapy was assessed by comparing the number of cases of perinatal pathology in the I, II and III trimesters and complications during childbirth (cases of spontaneous abortion, premature birth, placentation anomaly, preeclampsia, perinatal loss, placental dysfunction, intrauterine foetal distress, the dynamics of blood flow in the uterine-placental-fetal system).

Results and Conclusions. The use of L-arginine as an alternative preventive therapy for the development of preeclampsia and other perinatal pathology made it possible to significantly reduce the number of cases of preeclampsia (RR 0.19, 95%CI 0.05-0.77, p = 0.02) and developmental placental hyperplasia/hypoplasia (RR 0.17, 95%CI 0.04-0.68, p = 0.01), compared to patients who did not receive any preventive strategy.