2. We believe that the observed immunodeficiency of the main immunological link of local immunity (11SIgA) in patients with GP is a mirror image of changes occurring in the body of AN patients.

3. We sure that the aggressive microflora of parodontal pockets undoubtedly has a negative impact on the manifestation of AN.

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THE USE OF L-ARGININE AS A NO DONOR IN OBSTETRIC PRACTICE

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Donators of nitric oxide, in recent years are increasingly used in the clinical practice of various fields of medicine, among them the greatest interest is L-arginine (the main substance of the donor of nitric oxide) used in hypertensive disorders in pregnant women. Nitric oxide deficiency is a key element in endothelial dysfunction in critical conditions.

In recent years, a large number of studies have been devoted to studying the role of NO in the pathophysiology of obstetric conditions. The results of these studies laid the foundation for the clinical use of NO donors as a new pharmacological tool.

It is likely that this substance plays a fundamental role in the pathogenesis of preeclampsia and intrauterine growth restriction syndrome, where the ability of the
molecule to cause smooth muscle relaxation has been found to be quite useful. The role of NO in maintaining vascular homeostasis is reduced to the regulation of vascular tone, proliferation and apoptosis, as well as the regulation of oxidative processes. In addition, angioprotective properties are inherent in NO [1,2].

Fetal Growth Restriction Syndrome (FGR) is the result of reduced blood supply, leading to limited access to oxygen and nutrients necessary for fetal growth. The pathogenesis of this condition to date also remains not fully understood, apparently, therefore, no effective treatment of this pathology has yet been developed. It is likely that NO should play an important role in the prevention and treatment of this condition, since it can contribute to the improvement of uteroplacental circulation, increase the blood supply to the fetus [3]. As shown by some authors, in the second trimester of pregnant women who has FGR, the levels of NO in the amniotic fluid were lower than in the control group.

In recent studies on the effect of L-arginine (an NO donor) on the intrauterine condition of the fetus in patients with PE, it was found that it promotes intrauterine growth of the fetus by increasing NO production. Therapy with L-arginine contributed to an increase in the pulsation index of the middle cerebral artery and cerebro-placental ratio and a noticeable decrease in the systolic-diastolic ratio, pulse index, and resistance index [7].

Physiological vascular adaptation to pregnancy (an increase in blood volume, cardiac output and a decrease in vascular resistance) is accompanied by an increase in endogenous NO production and an increase in NO sensitivity to vascular smooth muscle cells. Experimental studies have shown the role of enhancing oxidative stress and reducing the bioavailability of vasodilators such as NO in the pathogenesis of cardiovascular dysfunction during pregnancy.

The effectiveness of the use of L-arginine in complicated pregnancy has been established in several studies. F. Facchinetti et al., examining hypertensive patients randomized to placebo or intravenous L-arginine groups, showed a significant decrease in SBP and DBP after treatment in the group receiving L-arginine [4]. There is also a tendency to prolong pregnancy.

L-arginine also contributes to intrauterine growth of the fetus by increasing NO production and improving blood circulation in the umbilical artery. In a randomized, placebo-controlled, double-blind, clinical study in pregnant women with preeclampsia, K. Rytlewski et al. (2006) found a significant decrease in the umbilical artery pulsation index in patients who received L-arginine in addition to standard therapy. Therapy with L-arginine contributed to a significant increase in the pulsation index of the middle cerebral artery and cerebro-placental coefficient. The duration of pregnancy and the Apgar score for newborns were also higher in the treatment group.

Some authors, when examining pregnant women with gestational hypertension and intrauterine growth retardation (FGR), who received L-arginine in addition to standard therapy, found a marked decrease in systolic-diastolic ratio, pulse index, and resistance index [8]. The NO content in the blood of the mother and the fetus was significantly higher than in the group receiving only standard therapy. The body weight of newborns from mothers treated with L-arginine was at the level of the control group and significantly higher than in the standard therapy group [7, 8].
Therefore, the results of numerous studies of recent years indicate the possibility of effective and safe application of the properties of L-arginine as an active NO donor in clinical practice in obstetric pathology.

Thus, the possibility of using L-arginine as a donor of nitric oxide in the treatment and prophylaxis of critical conditions in obstetrics is obvious and requires further study.

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