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# ПРОБЛЕМНІ ПИТАННЯ ДЕРМАТОВЕНЕРОЛОГІЇ ДИТЯЧОГО ВІКУ

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# EXISTING TREATMENT METHODS FOR THE DEVELOPMENT OF FETAL GROWTH RETARDATION

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Diagnosis, treatment, and prevention of fetal growth retardation (FGR) is one of the urgent problems of modern obstetrics. According to various authors, the prevalence of this syndrome in various obstetric pathologies ranges from 11% to 36%. In recent years, the incidence of FGR syndrome has been increasing. This is due to both the improvement of antenatal diagnosis and the instability of socio-economic conditions in modern society. Currently, risk factors for the formation of FGR have been identified: extragenital and obstetric pathology, intrauterine infection, poor ecology, smoking and the use of alcohol and drugs by pregnant women, and adverse effects of drugs. However, so far these factors have not been systematized. It has been established that perinatal losses in the case of FGR syndrome significantly depend on the body weight of the baby at birth and remain over 90% among premature infants. The combination of FGR with prematurity is a high risk of neonatal pathology. This determines the medical and social significance of the problem and the development of treatments for these conditions.

The choice of treatment regimen is based on the severity of the degree of intrauterine malnutrition of the child, fetoplacental insufficiency and the condition of the fetus. The therapy of FGR includes measures aimed at improving blood circulation

in the system "mother-placenta-fetus". It is believed that treatment of FGR is effective if started before the 20th week of pregnancy. Conducted at a later date, although it increases resistance to hypoxia, improves the condition of the fetus, however, it does not completely normalize it, and ensure adequate growth of the fetus.

At present, the main place in the treatment of FGR is drug therapy, which helps to normalize not only the tone of the uterus, but also eliminate circulatory disorders in the system "mother - placenta - fetus". There are known cases of the use of drugs of antispasmodic action, tocolytics. Antiplatelet agents are widely used: dipyridamole, acetylsalicylic acid, xanthinol nicotinate. With severe hypercoagulation, antiphospholipid syndrome, it is advisable to prescribe heparin or its derivatives (fraksiparin, clexane), which, normalizing tissue hemostasis. In the treatment of FGR, a mandatory component is metabolic therapy: cocarboxylase, vitamins, antioxidants, the use of hyperbaric oxygenation, ozone therapy. In order to stabilize the structural and functional properties of cell membranes, enhance antioxidant protection and improve fetal trophism, vitamin E and phospholipids are used. According to some authors, therapy also includes actovegin, which has an antihypoxic effect. In case of FGR, oxygen therapy is also indicated, in the form of inhalations. Today, the intravenous administration of an ozonized isotonic solution of sodium chloride has not lost its therapeutic value as a means of reducing vascular spasm, improving microcirculation and blood flow in the arterial vessels of the placenta, and normalizing the condition of the fetus during hypoxia. Dextran and solutions based on hydroxyethyl starch are also effective, contributing to the correction of hypovolemia, improving the rheological properties of blood, normalizing microcirculation in the placenta, as well as reducing resistance in the uterine arteries during preeclampsia (which can significantly reduce perinatal mortality). Infusions of freshly frozen plasma are indicated for violations in the plasma (coagulation) unit of the hemostatic system, hypoproteinemia (it is possible to use preparations containing amino acids). Modern science has proved that endogenous nitrogen monoxide (NO) is an effective regulator

of numerous vital processes in the human body, including blood circulation at all its levels. The only endogenous donor of the NO radical is the amino acid arginine; therefore, a number of researchers consider it appropriate to prescribe L-arginine in the treatment of FGR.

The introduction of modern diagnostic technologies (ultrasound, dopplerometry, cardiotocography) into practical public health made it possible to reduce the number of children with growth retardation. However, high morbidity and mortality among full-term and premature infants that do not decrease despite existing treatment methods indicate that existing treatment methods are not effective enough, and it makes it promising to develop new methods for the prevention of the development of FGR.