THE STUDY OF FETOPROTECTIVE ACTIVITY OF CHOPHYTOL ON THE MODEL OF THE SEROTONINE-INDUCED PLACENTAL DYSFUNCTION

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Introduction. Most pregnancy complications accompanied by the development of placental dysfunction (PD), has a multifactor nature, and can lead to perinatal loss and fetal growth retardation. Gravidoprotectors are used for the prevention and treatment that normalize fetogenesis and save a pregnancy. Study of the new safe and effective fetoprotectors are actual issues of the modern reproductive pharmacology.

Aim. The study of Chophytol fetoprotective action on the model of the placental dysfunction caused by serotonin hydrochloride. Materials and methods. Placental dysfunction caused by subcutaneous administration of serotonin hydrochloride (SHh) on pregnant female rats in dose of 2.5 mg / kg from the 13th to the 17th day of gestation. Chophytol (Lab. Rosa-Phytopharm, France) was injected into health care regime intragastric 50 mg / kg from the 11th to the 19th day of gestation. The effectiveness of Chophytol fetoprotective action on fetogenesis has been evaluated: the number of viable fetuses, the rate of the postimplantation fetal death (PIFD), weights of the fetus and placenta, fetus cranio-caudal size (CDS). Statistical analysis of the results was performed using parametric (Student's criterion adjusted Bonferoni), non-parametric methods (Mann-Whitney criterion), Fisher's exact method using «Statistica 5.0».

Results and discussion. It was established that after the SHh administration, there was 10 times increase PIFD, reduction of the viable fetus number, their weight and CDS, and the masses of the placenta in the pathological.

The application of Chophytol reduced the rate of PIFD in 6.6 times, leading to an increase in the number of viable fetuses in 2.5 times. It normalized the biometric indicators of physical development and increased the fetuses weight, increasing their CDS and placentas mass.

Conclusions. It has been established that the fetoprotective properties of Chophytol on the model of placental dysfunction is caused by the introduction of serotonin.