

FETOPLACENTAL INSUFFICIENCY AS A REASON OF OFFSPRING OXIDATIVE STATUS DISTURBANCES*

N. Yu. Seliukova^{1,2}, K. V. Misiura¹, M. O. Boiko¹, S. P. Kustova¹,
N. H. Grushanska³, P. V. Sharandak⁴, N. V. Medvedovska⁵

¹ SI «V. Danilevsky Institute for Endocrine Pathology Problems of NAMS of Ukraine», Kharkiv, Ukraine;

² National University of Pharmacy, Kharkiv, Ukraine;

³ National University of Life and Environmental Sciences of Ukraine, Kiev, Ukraine;

⁴ Ministry for Development of Economy, Trade and Agriculture of Ukraine, Kiev, Ukraine;

⁵ Scientific and coordination department NAMS of Ukraine, Kiev, Ukraine

seliukova_nat@ukr.net

The main scientific purposes of physiologists and pathophysiologists investigations during many years are particularities of the individual organism developing and mechanisms of pathologies forming in mammals including men. The list of diseases associated with the disturbances of the ontogenetic programs is constantly growing. Congenital disorders caused by teratogenic, embryotoxic, fetotoxic and stress factors during pregnancy represent the largest part of mentioned above diseases [1]. The integrative mechanisms controlled fetal developing, include mother, fetus and placenta, when different stress factors initiate compensatory adaptive response [2]. On the one hand, fetoplacental insufficiency (FPI) is widespread clinic syndrome caused by uncompen-

sated morphological and functional placental changes, accompanies with the disturbances of uterus-placental blood circulation and, respectively, with trophic fails, distress and fetus hypoxia, that are manifested in fetus growing and developing modifications [3-5]. The reasons of FPI developing may be endogenous in relation to placenta (for example, disturbances of placenta forming due to hormonal fluctuations or extragenital pathologies) or extraneous (pre-eclampsia, cardio-vascular disease etc). On the other hand, the uterus blood vessels may be immature (in comparatively young mothers) or have secondary involution (in mature mothers). Independently of trigger factors, the therapy of FPI consists of vasoactive, tokolytic, metabolic (vitamins), antioxidants, membranostabilizers

* The research was carried out as part of investigation work at the SI «V. Danilevsky Institute for Endocrine Pathology Problems of National Academy of Medical Science of Ukraine» «Studying the effects of «passive smoking» mothers during pregnancy on endocrine-somatic phenotype of offspring (experimental research)» (State registration number: 0117U007187).

Institution, which financed the research: National Academy of Medical Science of Ukraine.

The authors assume responsibility for the published work.

The authors guarantee absence of competing interests and their own financial interest when carrying out the research and writing the article.

The manuscript was received by the editorial staff 2.12.2019.