

Poster number 4311268

The endocrine function of the uterine endometrium of fetuses from mothers whose pregnancies were complicated by pre-eclampsia

Dr. Larysa Kupriianova

Italian and Ukrainian Medical Doctor, PhD in Medicine, LLB,

CEO and Founder of KROK Academy by Dr. Kupriianova

Expert of the National Agency for Higher Education Quality Assurance of Ukraine

Objectives: Pre-eclampsia (PE) negatively affects formation of functional activity of fetal organs and systems in the intrauterine period. Primarily, this applies to organs, the function of which is subsequently related to both endocrine activity and the germinal function of the female body. The purpose of the study is to reveal features of the endocrine function of the uterine endometrium of fetuses from mothers suffering from PE.

Methods: organometric, histological, immunohistochemical, statistical

Results: By applying the immunohistochemical method, we have postulated the following features of the hormonal activity of endometrium of fetal uterus. Namely, in the control group, we have observed the following indicators: 21-28 weeks: moderate response to estrogen (++ , 75% of stained cells); 29-36 weeks: moderate response to estrogen (++ , 80% of stained cells); 37-40 weeks: excessive positive response to estrogen (90% of cells). In the uterine endometrium of fetuses from mothers suffering from PE, we have emphasized the following indicators: 21-28 weeks: moderate positive reaction to estrogen (+, up to 50% of cells); 29-36 weeks: moderate positive response to estrogen (++ , 40% of cells); 37-40 weeks: weak positive response to estrogen (+, 15%). The reaction to progesterone in the fetal organs of the studied groups is negative.

Conclusions: In the uteri of fetuses from mothers with PE, there is a decrease in the hormonal activity of the endometrium in accordance with that in the organs of fetuses from healthy mothers. Moreover, our attention was paid to the fact that the minimum changes take place in the uterus of fetuses with a gestational period of 21-28 weeks, the maximum - in the organs of fetuses with a gestational period of 37-40 weeks. The changes that were postulated by us regarding the subsequent ontogenesis may lead to disruption of the functional activity of the endometrium, as well as may serve as one of the links in the pathogenesis of the development of primary infertility.



Figure 1.
Fetal uterus of the main group 1 with a gestation term of 37-42 weeks. Mild PE of the mother. The phenomena of endometrial hyperplasia. Stained with hematoxylin and eosin, x200.

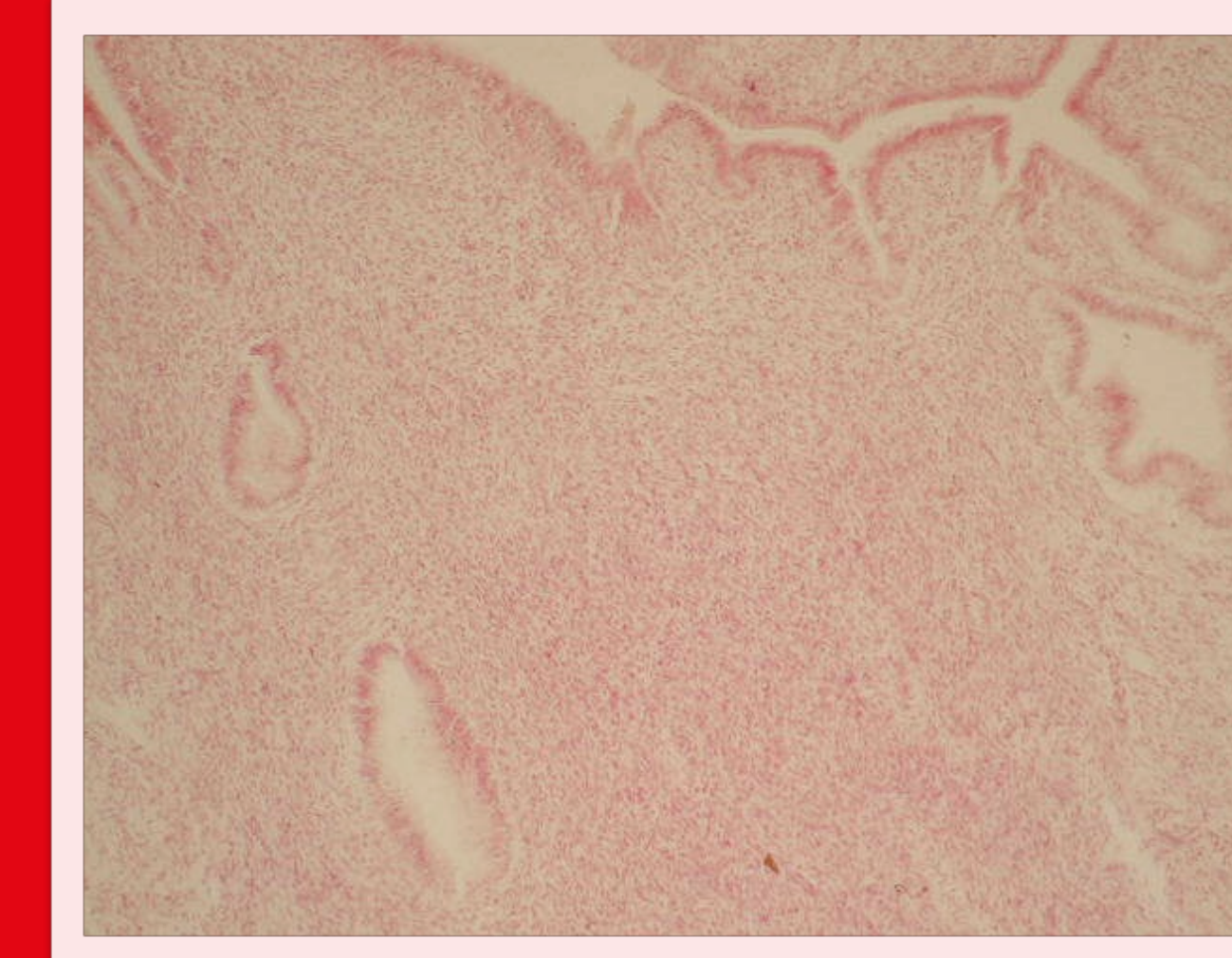


Figure 2.
Fetal uterus of the main group 1 with a gestation term of 29-36 weeks. Mild PE of the mother. Moderate intensity of reaction to RNP in nuclei of cells. Stained by Brachet, x200.

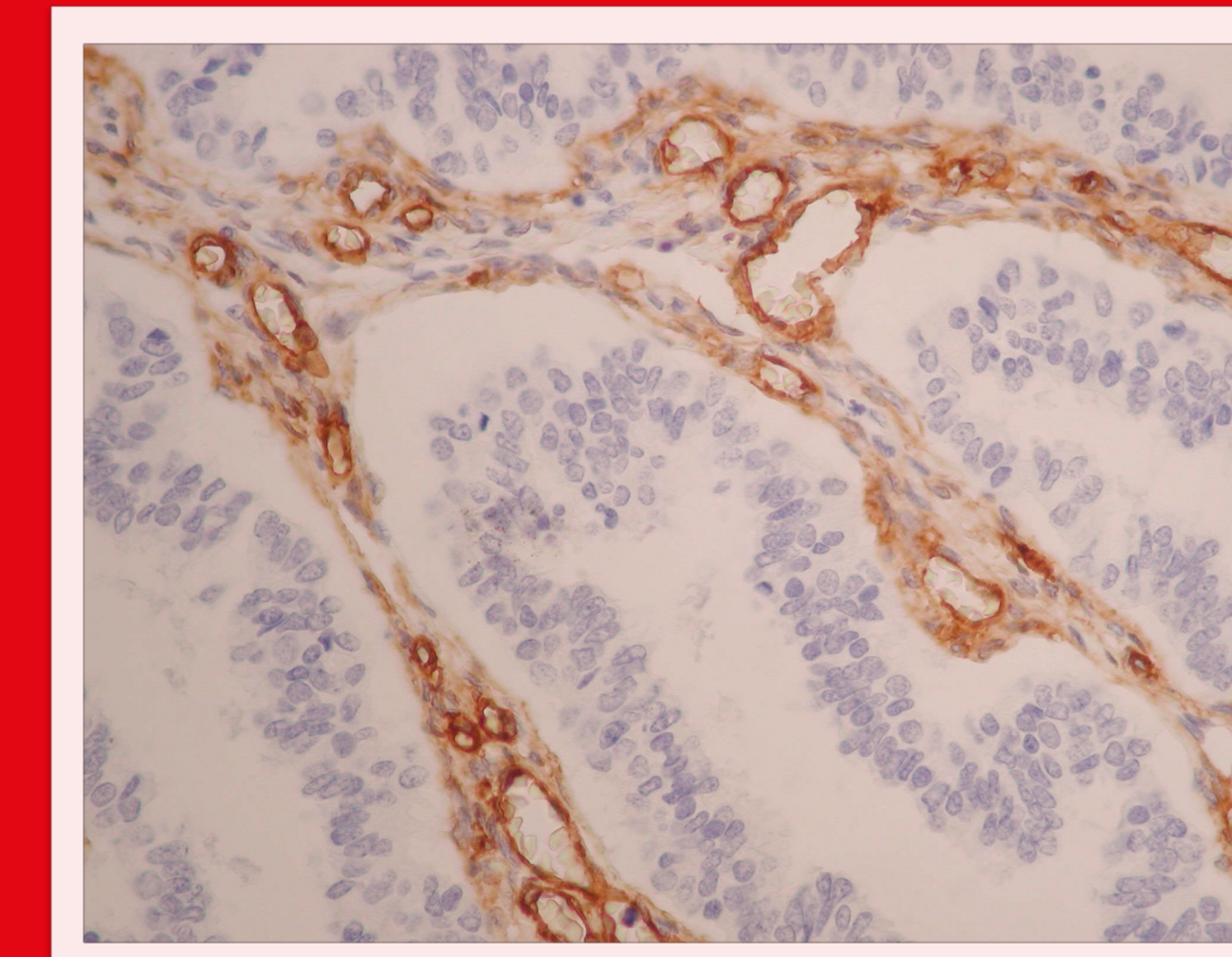


Figure 3.
Fetal uterus of the main group I with a gestation term of 29-36 weeks. Severe PE of the mother. Expressive collagen-producing activity. Immunohistochemical method with MCAT to the collagen III, x400.

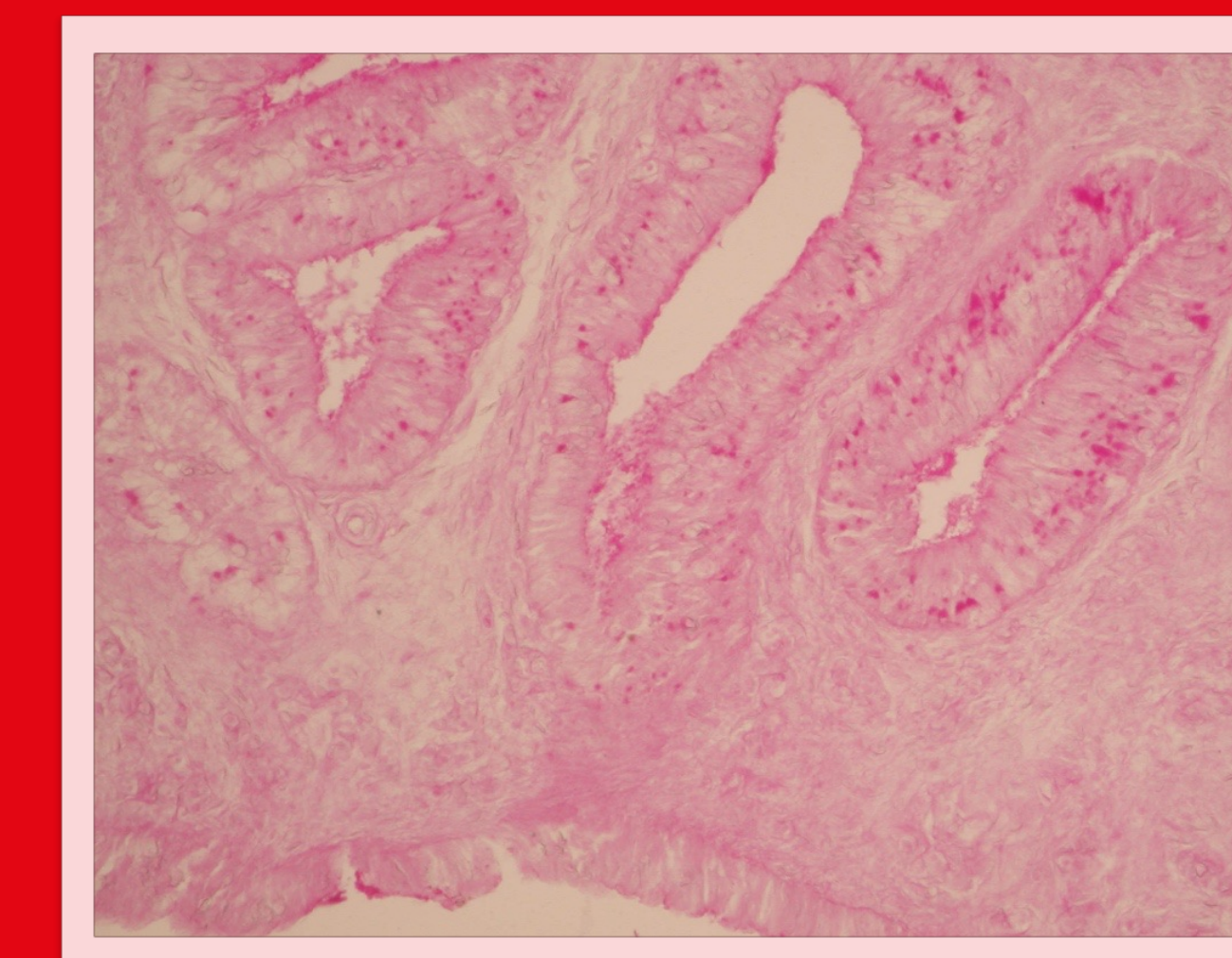


Figure 4.
Fetal uterus of the main group 1 with a gestation term of 29-36 weeks. Mild PE of the mother. Strong immune response reaction is moderately expressed, x200.

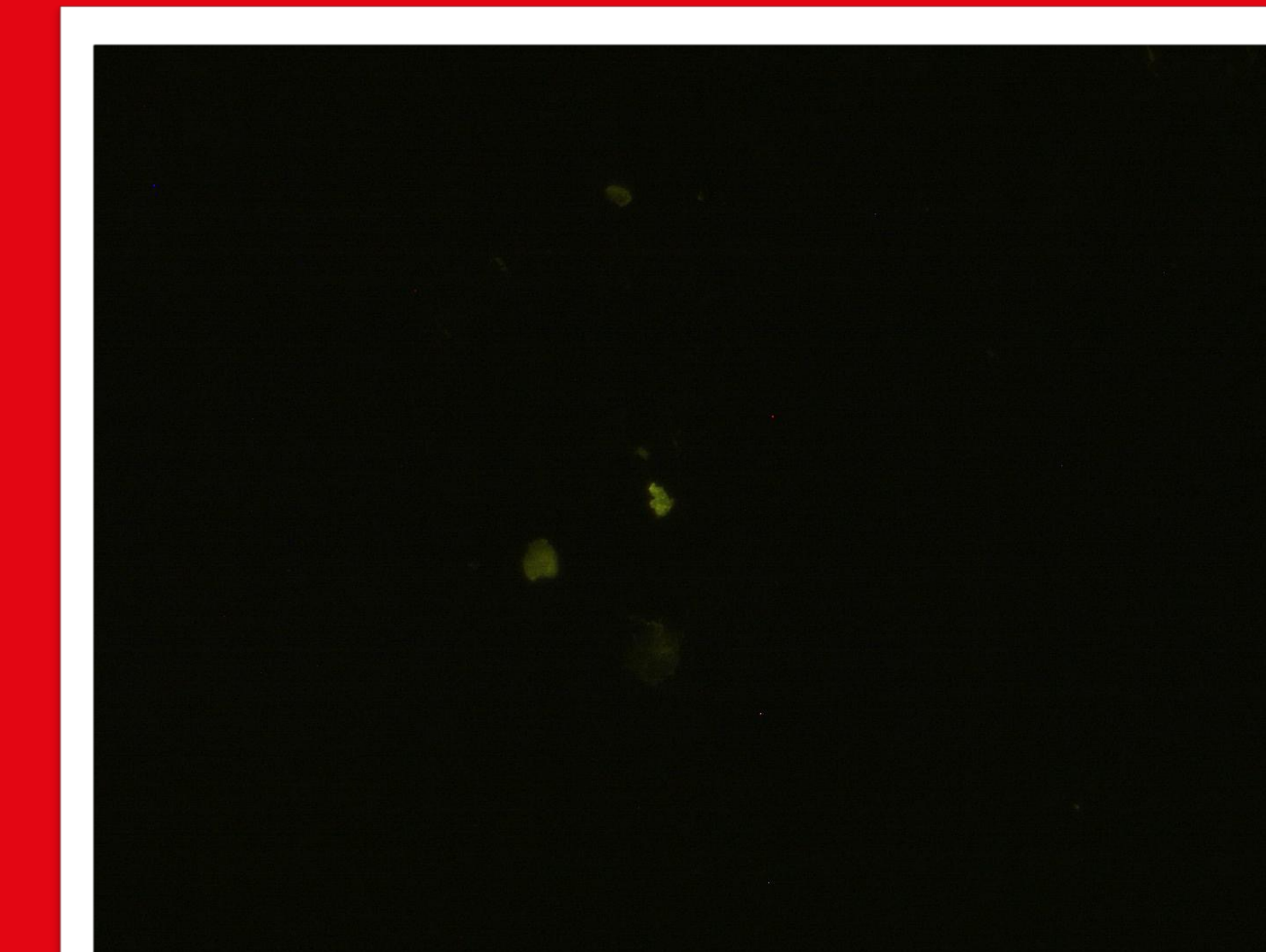


Figure 5.
Apoptotically altered epitheliocytes in the endometrium of fetal uterus of the main group 1 with a gestation term of 21-28 weeks. Mild PE of the mother. Immunohistochemical method with MCAT to CD95, x100.