Garvasiuk Oleksandra Vasylivna, Namestiuk Svitlana Valeriivna

THE STUDY OF FREE RADICAL-INDUCED DAMAGE TO PLACENTAL STRUCTURES IN A GESTATIONAL CONTEXT

Relevance:

The study of pregnancy termination processes remains a top priority in modern medicine, particularly in the second and third trimesters. The combination of placental pathologies with comorbid conditions continues to attract significant scientific interest worldwide.

Discussion:

Iron deficiency anaemia in pregnancy (IDAP) significantly complicates the diagnosis of placental maturation disorders (premature maturation, delayed maturation, or the formation of abnormal types of chorionic villi). When performing microscopic examination of the chorionic villous tree, the pathologist should carefully consider the patient's clinical data, including complete blood count and medical history during pregnancy.

Critical diagnostic criteria include the correspondence between villous morphology and gestational age, structural remodelling of vascular walls (spiral arteries), the condition of fibroblasts and endothelial cells, as well as immunohistochemical markers (placental lactogen, placental alkaline phosphatase, 11β-hydroxysteroid dehydrogenase, chorionic gonadotropin, vimentin, etc.).

Conclusions:

The findings of this study can serve as practical guidelines for pathologists in diagnosing placental maturation disorders, particularly premature villous maturation in the context of iron deficiency anaemia during pregnancy. In cases of combined placental maturation disorders and IDAP, fundamentally different diagnostic standards and interpretive approaches must be applied.