20th World Congress in Fetal Medicine

Pregnancies at risk of developing hemolytic disease of the fetus and newborn

Kratochvílová T, Durdová V, Ľubuský M
Department of Obstetrics and Gynecology, University Hospital and Faculty of medicine University Palacky, Olomouc, Czechia

Objective

All pregnant women should be screened for irregular anti-erythrocyte antibodies by the end of the 1st trimester. If the result of the screening is other than negative, the pregnant woman should have a consultation to determine the next procedure at a workplace with expertise in gynecology and obstetrics. If the risk of developing haemolytic disease of the fetus and newborn (HDFN) cannot be excluded, the pregnant woman should be monitored for the risk of developing fetal anemia. Our workplace has been intensively devoted to this issue for almost 20 years. The aim of the work is to evaluate the set of pregnant women who were monitored at the Center for Fetal Medicine in 2017-2022.

Methods

A retrospective prospective clinical study.

Results

At the center of fetal medicine, 423 pregnant women were consulted in the years 2017-2022 for suspected risk of developing HDFN. In 15% (59/423) of pregnant women, it was not a pregnancy with a risk of developing HDFN - they were mistakenly sent or the alloantibody was not identified, the remaining pregnant women came at regular intervals to monitor ultrasound signs of anemia in the fetus. The most clinically significant alloantibodies (anti-D, anti-c, anti-K) occurred in 28% (119/423) anti-D 58, anti-c 26, anti-K 35 cases, the most frequently occurring alloantibody was anti-E and that in 30% (131/423). In all these women, the genotype of the fetus from free fetal DNA was examined during pregnancy. We diagnosed a severe course of hemolytic disease of the fetus in 1% (6/423).

Conclusion

The issue of HDFN is still current, and despite efforts to raise awareness, we encounter cases where the management of pregnant women at risk of HDFN is not always completely optimal. Nationwide records in the Czech Republic, so workplaces draw information from their own registers to improve the care of pregnant women with this risk. From our collection, it is clear that anti-E alloantibody is most often identified, but severe anemia in the fetus was present in the group of pregnant women with anti-D, anti-c, anti-K alloantibody.