



Optimization of prenatal monitoring methods

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Objective

Prenatal diagnosis of hereditary diseases and congenital malformations has become a powerful tool of modern medicine, allowing a significant reduction of perinatal losses and severe disabilities. Prenatal diagnosis should be organized from the point of view of humanistic principles and should take into account the family needs. This approach helps to plan and monitor next pregnancies. Prevention of hereditary and congenital diseases is not only a great medical achievement, but also it has a tremendous social impact.

Methods

This is a study that was conducted in 2016 and 2017. In our unit the sonographic follow up during the pregnancy includes three mandatory prenatal screenings: 11-14, 18-21 and 30-34 weeks of gestation. All pregnant women with suspected fetal malformations are referred to fetal medicine specialists. The counseling takes into account the stage of the pregnancy and the defect that is being discussed. It clarifies to the parents the antenatal and post natal plan of care.

Results

During the study period 13285 scans were performed. Prenatal detection of 95 (2.3%) (in 2016 – 36 (1.8%), in 2017– 59 (2.95%)) cases of clinically significant fetal malformations were observed (in the first trimester, in 2016 and 2017 respectively 4 (11%) and 16 (27%), in the second trimester 14 (39%) and 30 (50%) and in the third trimester 18 (50%) and 13 (22%)). In some cases, after consultation, the pathology of the fetus was not confirmed - 12 (0.3%). The rate of abnormalities that were not detected prenatally was 0.075%.

Conclusion

Systematization of the approach to prenatal diagnosis allows the ultrasound to detect malformations in fetuses at an earlier stage, which leads to a better approach and management of the pregnancy. There is a clear correlation between prenatal data and the obstetrical management. Improvement of methods, quality control, good training, collaboration between different specialists and correct interpretation of the results lead to an improved and a reliable diagnosis of fetal malformations.