

Streszczenie w języku angielskim

Fetal echocardiography has become a standard component of contemporary perinatal care. It consists of three integral parts: an assessment of the anatomical structure of the fetal heart, an evaluation of cardiac function, and an analysis of heart rhythm. Only after confirming the absence of abnormalities in all aspects of the examination can full fetal well-being be established.

To differentiate fetuses at low risk of perinatal complications from those at high risk, studies and statistical analyses were conducted to evaluate the presence of functional changes observed in the third trimester of pregnancy and the subsequent condition of the newborn, including the occurrence of transitional-period complications. Using data available at the Department of Prenatal Cardiology at the Polish Mother's Health Institute, a tertiary-care center, it was possible to differentiate the study group – macrosomic newborns – from the control group of newborns with normal birth weight, and then analyze functional changes occurring in the third trimester of pregnancy.

It was documented that macrosomic newborns more frequently experienced ductus arteriosus constriction in the third trimester. Subsequently, groups of fetuses with visible ductal constriction in the third trimester were compared with fetuses showing normal cardiac function, as well as a group of fetuses with functional changes in the third trimester compared with those without such changes. In both cases, a correlation with neonatal hyperbilirubinemia was demonstrated.

The findings presented may be used in clinical practice by prenatal cardiologists, obstetricians, perinatologists, and neonatologists in the differential diagnosis of neonatal disorders. Proper interpretation of functional changes in the fetal heart may serve as an important element in optimizing perinatal and neonatal care.