Myocardial hypertrophy and dysfunction in maternal diabetes. (PMID:22445568)

Zielinsky P, Piccoli AL Jr
Fetal Cardiology Unit, Institute of Cardiology, Porto Alegre, Brazil. zielinsky@cardiol.br

Early Human Development [2012, 88(5):273-278]
Type: Journal Article
DOI: 10.1016/j.earlhumdev.2012.02.006

Abstract

Diabetes in pregnancy, both pre-gestational and gestational, is a frequent cause of fetal myocardial hypertrophy, partly due to fetal hyperinsulinism. In fetal life, cardiac function may be impaired, especially during diastole, as a result of decreased left ventricular distensibility and altered left atrial dynamics secondary to myocardial hypertrophy. In neonates, the hypertrophy is a transient disorder, with spontaneous regression of the increased myocardial thickness during the first months of life. Nevertheless, cardiac hypertrophy may be associated with neonatal cardiomegaly and respiratory distress secondary to poor left ventricular compliance. The development of a number of new echocardiographic parameters discussed in this article, and primarily based on the pathophysiological consequences of myocardial hypertrophy, highlight an area of research priority: the assessment of diastolic function in fetuses of diabetic mothers with (and without) myocardial hypertrophy. A score for grading the severity of fetal diastolic dysfunction in these fetuses is proposed.

- Abstract
- Full Text
- *PDF*
-
- **Export** citation (RIS)
  Email citation

Tweet

Search by Subject

- Atrial Function, Left
- Cardiography, Impedance
- Cardiomegaly
- Diabetes, Gestational
- Female
- Fetal Diseases
- Heart Defects, Congenital
- Heart Septum
- Heart Ventricles
- Humans
- Practice Guidelines as Topic
- Pregnancy
- Regional Blood Flow