CONGENITAL HEART DEFECTS IN FETUSES EXPOSED TO ANTIDEPRESSANTS DURING THE FIRST TRIMESTER OF PREGNANCY

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OBJECTIVE

Antidepressant treatment during the first trimester of pregnancy has been inconsistently associated with an increased risk of congenital heart defects (CHD). However, the specific risk for different CHD subtypes and the optimum timing for performing the echocardiographic assessment have not been clearly defined.

METHODS

- A retrospective study of 130 fetuses exposed to antidepressant medication during the first trimester of pregnancy with at least one available echocardiography performed prenatally (2009-2015).
- We only included patients with antidepressant with or without anxiolytic medication.
- Type of antidepressant, additional medications and other known risks factors for CHD were recorded.
- Gestational age at echocardiography and diagnosis, CHD diagnosis, extracardiac malformations and chromosomal anomalies were also recorded.

RESULTS

- Median gestational age at first echocardiography was 17.4 weeks (IQR 14.5-21.3).
- Echocardiography was performed before 16 weeks of gestation in 62 fetuses (47.7%) and only four CHD were prenatally identified (1 case of right aortic arch, 1 perimembranous and 1 muscular ventricular septal defect and 1 persistent left superior vena cava), which represented an incidence of 3.1%.
- All CHD were diagnosed after 20 weeks of gestation with the exception of the right aortic arch, which was diagnosed at 14 weeks of gestation.
- No other extracardiac or chromosomal anomalies were identified in the CHD cases.
- All anomalies were confirmed postnatally and no additional heart defects were found in the exposed group.
- Polytherapy was not significantly associated with CHD compared to monotherapy (p=0.63)

CONCLUSIONS

Antidepressant exposure during the first trimester of pregnancy, both in mono and polytherapy, is associated with a slightly increased risk of CHD, which seem to correspond to mild cardiovascular defects identified in the second trimester of pregnancy.