**EP09.19 The quantification of Z-scores of the color flow widths of atrioventricular valves in the fetuses with dilation of the coronary sinus**

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**Objectives**

To calculate Z-scores for mitral and tricuspid color blood flow widths in normal fetuses and fetuses with dilated coronary sinuses (CS) using fetal echocardiography, and explore the application value of Z-scores of the color flow widths of atrioventricular valves in normal fetuses and fetuses with dilated CS.

**Methods**

Two hundred and thirty-eight normal fetuses with a gestational age of 16 to 38 weeks were studied by using color Doppler echocardiography. Gestational age (GA), biparietal diameter (BPD), femoral length (FL), aortic inner diameter (AOD), pulmonary artery diameter (PAd), and heart area (HA) were measured as independent variables, and mitral and tricuspid valve color flow widths were measured as the dependent variables. Z-score models were established by regression analysis. Thirty fetuses with dilated CS from 22 to 33 weeks gestation were involved. The Z-scores of the CS fetus was calculated based on the established Z-score models and were compared with those of the normal fetuses.

**Results**

The independent sample t-test showed that there was no significant differences in the Z-scores of the blood flow width between the fetal mitral and tricuspid valves in the dilated CS group and the normal controls (P>0.05).

**Conclusion**

The isolated dilated CS does not affect the mitral valve diastolic blood flow, so there is no significant effect on the filling of left ventricular blood flow.