P08.08 - Longitudinal behavior of cardiovascular parameters in fetuses with complete congenital atrioventricular block

Mónica Cruz-Lemini¹, Jonathant Luna-García¹, Miguel Martínez-Rodríguez¹, Daniel Saldívar-Rodríguez¹, Israel Juárez-Martínez¹, Magdalena Martínez-Rivera².
Ma de la Luz Bermúdez-Rojas², Rogelio Cruz-Martínez¹.
¹Fetal Medicine Mexico Foundation; Department of Fetal Surgery, Women and Children’s Specialty Hospital of Queretaro, Mexico.
²Centro Estatal de Tamizaje Oportuno (CETO), Hospital de Especialidades Materno-Infantil, Leon, Mexico.

OBJECTIVE

To determine longitudinal behavior of fetal cardiac parameters throughout gestation in fetuses with autoimmune-associated congenital atrioventricular block (AVB).

METHODS

Fetuses with isolated complete congenital AVB. Fetal biometries, conventional Doppler, cardiovascular morphometric and functional parameters were serially performed, from diagnosis to delivery, with at least 2 measurements performed for each fetus, at least 1 week apart. All parameters were transformed into z-scores or multiples of the median (MoM). A linear mixed model was used to analyze repeated measures for each parameter.

RESULTS

31 ultrasound evaluations on 9 AVB fetuses (median 3 measurements per fetus).

CONCLUSIONS - Complete congenital AVB fetuses

Conventional Doppler: parameters remain stable during pregnancy.
MCA PSV: tends to be increased at diagnosis, and decreases.
Fetal heart rate: decreases.
Morphometric parameters: tend to evolve towards more large, rounder hearts.
Cardiac output: remains stable.