Objective
To assess the effect of antenatal steroids (AS) administration on central and peripheral circulation in growth restricted (GR) fetuses compared to appropriate for gestational age (AGA) fetuses.

Methods
At this moment 11 GR fetuses (AC ≤ 10th percentile and deflecting growth pattern) and 14 AGA fetuses (EFW ≥ 10th percentile, AC≥ 10th percentile, normal growth pattern and normal Doppler measurements) undergoing AS (betamethasone 12 mg i. m. 2 doses 24 hours apart) on medical indication were studied. Inclusion criteria were: singleton pregnancy, gestational age between 24 and 34 weeks, absence of chromosomal abnormalities, malformations or infections. Echocardiographic assessment of cardiac function including Myocardial Performance Index (MPI)left and right, E wave- A wave ratio (E/A) left and right, Mitral and Tricuspid Annular Plane Systolic Excursion ( MAPSE and TAPSE) was performed. Conventional Dopplers (Umbilical artery -UA, middle cerebral artery-MCA, ductus venosus- DV, uterine arteries- UtAA) were assessed as well. A "baseline" examination was performed before AS administration, followed by a second and third ultrasound at 24-48 hours and 7 days after the second dose, respectively.

Results
Groups were comparable for GA at AS administration. The only striking difference in measured Doppler parameters was the trend in the right MPI measurement in FGR fetuses before and after AS, pointing towards a deterioration of right ventricular function. (More results will be presented at the meeting).

Conclusion
Right MPI seems to increase consistently after AS administration in the FGR fetuses. The observed worsening of right ventricular function after AS administration prompts larger studies on the risk-benefit of AS in preterm FGR fetuses.