[P15.10] Targeted lipidomic profiling of paired maternal and fetal plasma in preeclampsia and fetal growth restriction

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Objective
To evaluate paired maternal and fetal lipidomic profile in pregnancies complicated by preeclampsia (PE) and/or fetal growth restriction (FGR) by NMR-based lipidomics.

Methods

Maternal & cord blood at delivery

Lipidomics (Nuclear Magnetic Resonance → Liposcale test)

controls (n=90)
FGR (n=48)
PE (n=46)
PE+FGR (n=52)

Conclusions: Pregnancies complicated by PE and/or FGR show a differential lipidomic pattern with higher VLDL, IDL and lower HDL in maternal blood of PE and cord blood of FGR fetuses.

Results

Figure 1: Unsupervised hierarchical clustering based on the univariate analysis of A) maternal blood and B) cord blood samples. A z-score transformation was performed on the intensity of each metabolite across all the study groups and each group mean z-score is displayed in the heatmap.