Results: Population: 526. There was no significant association between Doppler or cCTG and adverse outcome at birth (n = 29). An association between antenatal predictors and neonatal morbidity was found at discharge (table 1). Binary logistic regression showed that gestational age (GA) at birth was the main predictor of composite neonatal morbidity at discharge (adjusted OR 0.61, p = 0.003).

Conclusions: GA at delivery, rather than Dopplers or cCTG, appears to be the main determinant of neonatal morbidity at discharge in this population of SGA babies.

VP36.14: Table 1.

	Neonatal morbidity at discharge		
	Present (n = 53)	Absent (n = 473)	p value
UA PI > 95th centile (n)	10 (19%)	43 (9%)	0.013
MCA PI < 5 centile (n)	14 (26%)	19 (4%)	<0.0001
U/C ratio (median)	0.74	0.60	0.0004
UtaPI> 95th centile (n)	15 (28%)	101 (21%)	0.136
Abnormal cCTG (n)	15 (28%)	34 (7%)	<0.0001
GA at birth (weeks, median)	34+6	38+4	<0.0001
Birthweight (g, median)	1730	2520	<0.0001

VP36.15

Evaluation of uterine artery pulsatility index and 17β estradiol serum concentration in first trimester pregnancies with oocyte donation

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Objectives: Oocyte donations (OD) represent about 5% of all *in vitro* fertilisations and face increased risks of pregnancy complications, especially pre-eclampsia and placental dysfunction. Maternal circulating estrogens levels are capable of modulating uterine blood flow in the animal model and this hormonal treatment is essential in the first trimester of OD pregnancies. The aim of our study was to assess uterine arteries Doppler pulsatility index (UtA-PI) and maternal serum 17β estradiol concentration at 11–14 weeks in pregnancies with OD and different modes of conceptions.

Methods: Four groups of singleton pregnancies were studied (OD-IVF n = 55; autologous-fresh IVF n = 48; autologous-frozen IVF n = 10; spontaneous conceptions SC n = 122). Transadbominal ultrasound and Doppler studies were performed at 11–14 weeks obtaining mean left-right UtA-PI. Maternal venous concentrations of 17β estradiol were analysed using the electro chemo luminescence in immunoassay method (ECLIA). Significance of differences between group was explored with analysis of variance and Kruskal-Wallis or Mann-Whitney U-test.

Results: Oocyte recipients were significantly older than IVF and spontaneous pregnancies. Mean body mass index, Crown–rump length and gestational age at measurement was not different between groups. Both mean UtA-PI and serum maternal 17β estradiol concentration at 11–14 weeks were significantly lower in OD recipients as compared to SC and autologous IVF, either from fresh and frozen cycle (mean UtA-PI OD 1.41 [0.49], mean UtA PI control groups 1.70 [0.45], all p < 0.05; mean 17β estradiol concentration OD pg/mL: 1674.2 [372]; mean 17β estradiol concentration control groups: 2548 [1552], p < 0.05).

Conclusions: Oocyte donation present lower uterine arteries pulsatility index and lower serum 17β estradiol in the first trimester of pregnancy. Etiology of these peculiar differences is likely multifactorial and deserve further investigation.

VP36.16

Are there any benefits of antenatal corticosteroids in small-for-gestational-age neonates?

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Objectives: Antenatal corticosteroids have been worldwide administered for women in a risk for preterm birth prior to 34 weeks gestational age. Their positive effects on neonatal outcomes have been well established, however their effects on small-for-gestational-age neonates have been limited with conflicting results.

Methods: This is a retrospective cohort study over period of three years (January 2016–December 2018), carried out through the electronic chart review at Prince Sultan Military Medical City. The women that gave birth between 24 weeks +0 days and 33 weeks +6 days gestation were included with exclusion of those that were found to have fetal/neonatal anomalies. Small-for-gestational-age neonates were defined as their birthweight less than the 10th percentile. Data was analysed by using descriptive statistics and inferential statistic via IBM SPSS ® version 20. Odds ratios (OR) with 95% confidence intervals (CI) were calculated. Statistical significance was set at P <0.05.

Results: Out of all preterm births, 224/1174 (19%) neonates were found small for gestational age. Among 149/224 (67%) neonates that were exposed to corticosteroids prenatally, there were more babies admitted to neonatal intensive care 133/149 (89%) vs. 44/75 (59%) and developed bronchopulmonary dysplasia 24/149 (16%) vs. 3/75 (4%) in comparison to the unexposed group with OR 0.17(CI 0.85-0.34) and OR 0.21(CI 0.06–0.75) (p value <0.05) respectively. There was no statistically significant difference in rate of respiratory distress syndrome, intraventricular hemorrhage, sepsis, necrotising enterocolitis and transient tachypnea of newborn between corticosteroid exposed and unexposed neonates (p value >0.05).

Conclusions: Small-for-gestational-age fetuses may have sufficient exposure to an endogenous corticosteroid, therefore additional dosage may not have any beneficial impact on their short-term neonatal outcomes.

VP36.17

How sensitive are consensus-based definitions of late FGR in the identification of malnourished newborns?

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Objectives: To determine the sensitivity of criteria for the diagnosis of late FGR in the identification of malnourished newborns.

Methods: Criteria for the diagnosis of late FGR were applied to the ultrasound and infant data of 274 pregnancies undergoing serial fetal biometry, umbilical artery Doppler and neonatal measurements (Owen et al 1996). The criteria comprise of either: 1. EFW <3rd c. or 2. Two from EFW <10th c., EFW crossing > 50 c., and umb