

which a fetal growth scan was performed at 34<sup>+0/7</sup> to 37<sup>+0/7</sup> weeks of gestation. Composite adverse neonatal outcome at discharge was defined by the presence of at least one of the following: birthweight >4,000 g, neonatal hypoglycemia requiring glucose 5% intravenous infusion, and shoulder dystocia not resolved by McRoberts' manoeuvre.

**Results:** Population: 225. Characteristics of pregnancies with normal or adverse neonatal outcome at discharge are shown in table 1 (median values are reported). Binary logistic regression showed that ultrasound estimated fetal weight Z score (adjusted odds ratio (aOR) 6.82;  $p < 0.0001$ ) and 1-hour maternal glucose level (aOR 1.02;  $p = 0.027$ ) were associated with adverse neonatal outcomes.

**Conclusions:** Estimated fetal weight at 34<sup>+0/7</sup> to 37<sup>+0/7</sup> and one-hour maternal glucose level appear to be the main determinants of neonatal adverse outcome at discharge in this neonatal population from pregnancies complicated by gestational diabetes.

#### VP36.20: Table 1.

	Adverse neonatal outcome		p value
	Absent (n = 203)	Present (n = 22)	
Maternal glucose (1 h)	180	190	0.0418
EFW Z score	0.778	1.746	0.0001
AC Z score	0.863	2.050	0.0001
Birthweight (g)	3350	4205	0.0001
Birthweight centile	40	97	0.0001

#### VP36.21

##### Timing of delivery in twin pregnancy with selective fetal growth restriction

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**Objectives:** In compromised fetal growth restriction (FGR), the decision on optimal timing of delivery is made based on the risk of intrauterine death (IUD) and the risk of iatrogenic preterm birth (PTB). In twin pregnancy, if selective FGR (sFGR) twin is in the status of impending IUD in preterm, immediate delivery will reduce the risk of IUD while exposing co-twin to PTB. The objective of this study was to evaluate the physician's views on the optimal timing of delivery in sFGR twin.

**Methods:** The online questionnaires were sent to obstetricians and gynecologists (OBGYN) in South Korea. The questionnaire asked 1) the limit of viability and the limit of intact survival; 2) the optimal timing of delivery in dichorionic (DC) and monochorionic (MC) twin pregnancy if the sFGR twin is suspected as the status of impending IUD.

##### Results:

1. Total 112 OBGYN answered the questionnaire;
2. The participants considered the limit of viability as 24 wks and the limit of intact survival as 30 wks;
3. In compromised sFGR twin, participants tend to deliver at median gestational age (GA) of 30wks for DC twin and at 28wks for MC twin, respectively. ( $p < 0.001$  between DC and MC twin);
4. The GA of limit of intact survival and the optimal timing of delivery in DC twin was correlated ( $p < 0.05$ ).

**Conclusions:** Participants tend to deliver compromised sFGR twin at GA of the limit of intact survival (30 wks) in DC twin and at the midway between the limit of viability and intact survival (28 wks) in MC twin. More researches are needed to answer this question.

Supporting information can be found in the online version of this abstract

#### VP36.22

##### The utility of phase rectified signal averaging in diagnosing fetal distress

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**Objectives:** Fetal heart rate variability is known as a marker of fetal wellbeing. The variables of phase rectified signal averaging – acceleration capacity and deceleration capacity (AC/DC) – were found to have a significant prognostic value in fetal growth restriction (FGR).

**Methods:** A total of 168 pregnant women at 26–28 weeks were examined. The patients with AGA fetuses (N=36) were enrolled in group 1. eFGR without fetal distress (N=64) were group 2. eFGR with fetal distress (N=68) = group 3. We used Cardiolab Babycard equipment (the "KhAI Medica" Scientific Research Centre, Ukraine) to non-invasive fetal electrocardiography. Fetal distress was diagnosed via Doppler ultrasound in case of the RD UA, absent A-wave in the DV, and umbilical vein pulsations. The results thus obtained were analysed with an ANOVA test. The significance was set at  $p$ -value  $< 0.05$ . The correlations coefficients were estimated with Spearman's test.

**Results:** The maximally decreased AC/DC values were in Group 3 ( $p < 0.05$ ). The variables of phase rectified signal averaging were lower in Group 2 than in Group 1 ( $p < 0.05$ ) but higher than in Group 3 ( $p < 0.05$ ). Thus, the delayed neurological maturation and the autonomic malfunction could be the reasons for fetal distress in FGR. The considerable correlation was detected in the appropriate to gestational age fetuses ( $R = 0.64$ ,  $p < 0.05$ ). In Groups 2 and 3, the force of correlation was almost similar (respectively,  $R = 0.62$ ,  $p < 0.05$ ;  $R = 0.68$ ,  $p < 0.05$ ). Therefore, AC/DC is a prospective marker for the detection of fetal compromise. This result was supported by a significant correlation in the pair "AC/DC vs umbilical blood pH" in all groups. The coefficients of correlation were:  $R = 0.70$ ,  $p < 0.05$ ;  $R = 0.68$ ,  $p < 0.05$ ;  $R = 0.72$ ,  $p < 0.05$  in Group 1, 2 and 3, respectively.

**Conclusions:** Fetal AC/DC variable is a sensitive tool for the detection of fetal distress in FGR.

#### VP36.23

##### Deceleration of fetal growth: is it a predictor of adverse obstetric outcomes?

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**Objectives:** Evaluate if the deceleration of fetal growth is associated with adverse perinatal outcomes.

**Methods:** Retrospective cohort study between October 2019 and January 2020. Deceleration of fetal growth was defined as a difference between the estimated fetal weight (EFW) made in