

comparing women undergoing amniocentesis versus women not undergoing amniocentesis found no significant difference either when focusing on overall fetal loss, fetal loss before 24 weeks of gestation and fetal loss within 4 weeks from the procedure.

The incidence of fetal loss was 2.0% (95% CI 0.0–6.5) compared with 1.8% (95% CI 0.3–4.2) for twin pregnancies not undergoing CVS. The occurrence of procedure-related fetal loss was 0.5% in DC pregnancies, while there was no study on MC gestations. Head-to-head meta-analyses directly comparing women undergoing CVS versus women not undergoing CVS found no significant difference either when investigating overall fetal loss and fetal loss before 24 weeks of gestation.

**Conclusions:** The risk of fetal loss following amniocentesis and CVS in twin pregnancies is lower than previously reported especially when compared to a baseline population of twin pregnancies not undergoing invasive procedures. These data can guide prenatal counselling for twin pregnancies undergoing invasive procedures.

VP44.03

### Twin pregnancies complicated by preterm prelabour rupture of membranes

A. Della Gatta<sup>1</sup>, F. Filipponi<sup>1</sup>, A. Pellegrino<sup>1</sup>, M. Cofano<sup>1</sup>, S. Amodeo<sup>1</sup>, G. Simonazzi<sup>1</sup>, G. Pilu<sup>2</sup>

<sup>1</sup>*Obstetrics and Perinatal Medicine, Università degli Studi di Bologna, Bologna, Italy;* <sup>2</sup>*Obstetrics and Gynecology, University of Bologna, Bologna, Italy*

**Objectives:** To identify the risk factors for membrane rupture before 34 weeks of gestation in twin pregnancies and to collect subsequent maternal and perinatal outcomes.

**Methods:** We led a retrospective cohort study of twin pregnancies, disregarding the chorionicity, complicated by membranes rupture before 34 weeks of gestation through review of health records of twins born in a tertiary hospital, Policlinico Sant'Orsola, Bologna, between 2003 and 2020.

**Results:** 106 twin pregnancies were admitted, over a 17-year period, with a diagnosis of premature rupture of membranes (fluid pooling on speculum examination and/or insulin growth factor binding protein-1 positive on vaginal secretions and/or reduction of amniotic fluid at ultrasound). 196 (93%) fetuses survived. The mean gestational age at P-Prom was 31.1 weeks with 29% happened after an invasive procedure. White cells blood count was higher in 50% of cases, while reactive C-protein was higher in 21% of cases. No adverse maternal outcome (sepsis, death) were recorded. 163 newborns were admitted to Neonatal Intensive Care Unit. Data are summarised in table 1.

**Conclusions:** PPRM is known to increase the risk of morbidity, but not all patients will develop infectious complications. The few days between onset of PPRM and delivery maybe justify the low rate in maternal adverse sequels. The identification of risk factors (invasive procedures, leukocytosis) allows the best obstetric and neonatal management and help clinicians to better counsel patients with such complicated pregnancies.

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

VP44.04

### Factors that affect first trimester ultrasound screening for detecting fetal structural anomalies in twin pregnancies

X. Li, Q. Wu

*Beijing Obstetrics and Gynecology Hospital, Capital Medical University, Beijing, China*

**Objectives:** To determine factors that might impact screening performance of fetal structural anomalies in twin pregnancies in the first trimester.

**Methods:** This is a retrospective study, in which ultrasound, prenatal diagnosis and perinatal care data were collected from women with twin pregnancies booked at Beijing Obstetrics and Gynecology Hospital from January 2012 to December 2016. Potentially variables which may affect the detection rate of fetal structural anomalies by first trimester ultrasound were analysed, including different anatomical systems of anomalies, maternal body mass index (BMI), sonographer experiences, year allocated for scan and gestational age at scan.

**Results:** A total of 1445 women with twin pregnancies (2890 fetuses) were included in the study, in which 45 fetuses were found complicated with structural anomaly. The detection rate of structural anomalies by first trimester ultrasound was 37.8% (17/45) per fetus. All (12/12) of the “always” detectable structural anomalies and none (0/10) of the “never” detectable structural anomalies were detected; 51.1% (23/45) were “potential” detectable structural anomalies, in which 5 fetuses were detected (2 cardiovascular, 2 abdominal, 1 skeletal anomalies). The number of sonographers with more experience (more than 10 years) was more in detected cases than missed cases (3/5 vs 2/18,  $P = 0.029$ ), and mean fetal gestational age at scan was larger ( $13.1 \pm 0.3$  vs  $12.4 \pm 0.6$ ,  $P = 0.041$ ). There was no statistically significant difference in different anatomical systems of anomalies, maternal BMI and year allocated for scan between detected cases and missed cases.

**Conclusions:** More experienced sonographer, relatively large fetal gestational age at scan was associated to accurate detection when fetal structural anomalies were potentially detectable in twin pregnancy in the first trimester, whereas different anatomical systems of anomalies, low maternal BMI and year allocated of scan were not.

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### Preterm multiple gestations and effect of prenatal corticosteroids

I. Babic<sup>1</sup>, S. BaEissa<sup>1</sup>, N. Al Hussain<sup>1</sup>, W. Turkistani<sup>1</sup>, F. Kashlan<sup>2</sup>, A. Ammari<sup>2</sup>

<sup>1</sup>*Division of Maternal-Fetal Medicine, Department of Obstetrics and Gynecology, Prince Sultan Military Medical City, Riyadh, Saudi Arabia;* <sup>2</sup>*Division of Neonatal Medicine, Department of Pediatrics, Prince Sultan Military Medical City, Riyadh, Saudi Arabia*

**Objectives:** Preterm birth among multiple gestations is the most common complication worldwide. Prenatal corticosteroids have been one of the most important interventions that led to a decrease incidence of neonatal death and several neonatal morbidities. Its effects among multiple gestations revealed controversial results and to date remain unclear. Due to high importance of preventing prematurity related complications, we sought to determine whether prenatal corticosteroids have effect on preterm multiple gestations.

**Methods:** Retrospective cohort study at Prince Sultan Military Medical City over period of three years. Inclusion criteria were all non-anomalous multiple gestations delivered preterm (defined as a birth prior 37 weeks of gestation). Perinatal outcomes were retrieved from the medical records. The neonates were grouped in two categories, whether they were exposed or not to prenatal corticosteroids. Data was analysed by using descriptive statistics via IBM SPSS<sup>®</sup> version 20. Multinomial logistic regression tests were utilised to assess the neonatal variables between exposed and unexposed group. Odds ratios (OR) with 95% confidence intervals (CI) were calculated. Statistical significance was set at  $P < 0.05$ .

**Results:** There were 258 /1174 (22%) multiple gestations delivered preterm. 130/258 (50%) delivered before 34 weeks and 128/258 (50%) delivered as late preterm, between 34 and 37 weeks of gestation. After multivariable logistic regression analysis, there was