

ending during Caesarean section in patients whose uterine isthmus opened earlier.

P16.10
Prelabour fetal cardiac output and risk of intrapartum fetal compromise

A. Alsolai^{1,2}, L. Bligh^{1,2}, S. Kumar^{1,2}

¹Mater Research Institute, Brisbane, QLD, Australia; ²University of Queensland, Brisbane, QLD, Australia

Objectives: There is currently no good prelabour test to predict intrapartum fetal compromise (hypoxia). Given that redistribution of cardiac output is responsible for the “brain sparing” effect and alterations in fetal heart rate patterns are used to assess fetal wellbeing, we investigated the relationship between prelabour cardiac output in fetuses that subsequently developed intrapartum compromise.

Methods: This prospective observational study was undertaken at the Mater Mothers’ Hospital in Brisbane. Two hundred women with appropriately grown singleton pregnancies were recruited to the study. Exclusion criteria were: multiple pregnancy, pre-eclampsia, fetal growth restriction. Each participant underwent fortnightly ultrasounds from 36 weeks until delivery. The aim was to measure cardiac output within two weeks of birth. Pregnancy outcomes including mode of, and indication for delivery, birthweight, incidence of fetal heart rate abnormalities in labour and neonatal outcomes were recorded.

Results: Left cardiac output (507 ml/min vs 573 ml/min, $p < 0.01$) was significantly lower in fetuses that developed intrapartum fetal compromise requiring emergency delivery of any kind compared to those that did not.

Conclusions: Prelabour fetal cardiac output is lower in babies that develop intrapartum fetal compromise. This finding may help risk stratify women prior to delivery.

P16.11 WITHDRAWN

P16.12
The predictive value of RI and PI ratio of fetal descending aorta/MCA for fetal outcome in complicated and uncomplicated pregnancies from 36 weeks

E. Esfahani¹, E. Zarean², A. Jamal², V. Marsosai¹

¹Department of Perinatology, Shariati Hospital, Tehran, Islamic Republic of Iran; ²Department of Obstetrics and Gynecology, Tehran University of Medical Sciences, Tehran, Islamic Republic of Iran; ³Department of Obstetrics and Gynecology, Isfahan University of Medical Sciences, Isfahan, Islamic Republic of Iran

Objectives: Doppler ultrasound is used in high risk pregnancies particularly in FGR to determine the fetal prognosis and outcome. After the 34 weeks of gestation the cerebroplacental ratio of MCA and umbilical artery is not significantly related with the prognosis and outcome of the pregnancy. The PI and RI ratio of descending aorta and MCA may help us since the vascular resistance of descending aorta does not change with increasing gestational age. The aim of this study is to diagnose placental dysfunction and fetal hypoxia in complicated pregnancies and to determine the predictive value of Doppler ultrasound for fetal outcomes in low risk pregnancies.

Methods: In a cohort study pregnant women with gestational age of less than 36 weeks more underwent Doppler study of umbilical artery, MCA and descending aorta every 2 weeks in 3 hospitals of Tehran University of Medical Sciences. Multiple pregnancies and pregnancies with major fetal anomalies were excluded. Doppler study results, pregnancy complications (pre-eclampsia, placental abruption...) and fetal outcome were recorded.

Results: Two hundred and twelve pregnant women with a mean age of 28 years old and mean gestational age of 37w6d were studied. 142 had uncomplicated and 69 had complicated pregnancies. Mean birth weight was 3252 g in the uncomplicated and 2773 g in complicated pregnancies. 25 neonates were admitted to NICU, 21 in complicated and 4 in uncomplicated group. Ao/ MCA PI and RI ratio were significantly more in complicated group. (PI [1.09 +/- 0.45 vs 0.9 +/- 0.39] and RI [0.9 +/- 0.91 vs 0.91 +/- 0.17]) Ao/ MCA PI ratio was the best predictor of neonatal acidosis. [OR: 4.7 CI 95% 3.6-6.3] Area under curve to predict neonatal acidosis was 0.8. A cut off value of 1.1 for Ao/MCA PI ratio best predicted neonatal acidosis with a sensitivity of 70% and specificity of 90%. The cut off was 1.01 for Ao/ MCA RI ratio with a sensitivity of 67% and specificity of 87%.

Conclusions: Ao/MCA RI ratio help us to predict fetal acidosis in complicated pregnancies.

EP16.13
Prediction of delivery mode in women with low-lying placenta

J. Kim, Y. Kim

¹Department of Obstetrics and Gynecology, Chonnam National University Medical School, Gwangju, Republic of Korea

Objectives: To evaluate the predictors of delivery mode in women with low-lying placenta.

Methods: A retrospective chart review was performed. Women who with low-lying placenta want a vaginal delivery were included in this study. A diagnosis of low-lying placenta is usually made when the length from the placental lowest edge to the internal os is less than 3 cm and the edge did not cover the internal os by vaginal ultrasonography. Women with uterine scar, abnormal presentation, multifetal pregnancy, and who wanted a, elective Caesarean section were excluded. Risk assessment included Bishop score and cervical dilatation score at trial of labour (TOL), age, parity, maternal body weight and height, gestational age at TOL, placental location, duration of first stage, and distance from the placental lowest edge to the internal os.

Results: A total of 63 women met inclusion criteria. Of those women, 44 (69.8%) had a vaginal delivery and 19 (30.2%) underwent Caesarean delivery. Bishop score and cervical dilatation score at TOL had a high predictive value for vaginal delivery. Women with vaginal delivery had higher Bishop score at TOL than women in the Caesarean delivery group (6.1 ± 2.3 vs. 4.6 ± 1.8 , $p = 0.020$). And women with vaginal delivery had more cervical dilatation score 2 or more at TOL than women in the Caesarean delivery group (22.7% vs. 0%, $p = 0.049$). The receiver operator characteristics (ROC) curves were analysed for the Bishop score, a value of 6 was the best cut-off value to determine a vaginal delivery (AUC 0.723, $p < 0.001$).

Conclusions: Prediction of vaginal delivery in women with low-lying placenta is dependent on cervical examination at TOL. The Bishop score and cervical dilatation score can be utilised when counselling women considering a vaginal delivery.

EP16.14
Features of antenatal ultrasonographic monitoring in diabetes mellitus pregnant women in the diagnosis of diabetic fetopathy and determining the degree of perinatal risk

I. Safonova^{1,2}

¹Department of Ultrasound Diagnostics, Kharkiv Medical Academy of Postgraduate Education, Kharkiv, Ukraine;

²Department of Ultrasound Diagnostics, Kharkiv Regional Perinatal Centre, Kharkiv, Ukraine