Methods

Five hundred and eleven women with uncomplicated, term, singleton pregnancies, underwent a pre-labour ultrasound assessment. This included measurement of fetal biometry, Umbilical artery, Middle cerebral artery, and Umbilical venous resistance indices. Clinicians managing the labour were blinded to the ultrasound results. Following delivery, case notes were reviewed and intra-partum outcomes correlated with ultrasound findings.

Results

Infants born by Caesarean section for presumed fetal compromise had the highest Umbilical artery pulsatility index (p = 0.002), the lowest Middle cerebral artery pulsatility index (p < 0.001), the lowest cerebro-umbilical ratio (p < 0.001), the lowest Umbilical venous flow rates (p = 0.003), and the highest cerebral blood flow of any mode of delivery group (p = 0.007). A cerebro-umbilical ratio <10th centile has a positive predictive value of 36% for Caesarean section for presumed fetal compromise. This can be improved to 61.5% by inclusion of the other Doppler parameters. A cerebro-umbilical ratio >90th centile has a 100% negative predictive value.

Conclusion

Pre labour fetal Doppler assessment can identify fetuses at both high and low risk of subsequent compromise in labour. Current intra-partum monitoring has a high false positive rate, which could be improved by better risk stratification prior to labour. This technique is easily translatable into clinical practise and would allow risk stratification of normal pregnancies prior to labour, enabling a more targeted approach to intra-partum care.

3.2 WHAT ARE THE INTRAPARTUM RISKS ASSOCIATED WITH OBESITY IN HEALTHY WOMEN WITHOUT ADDITIONAL RISK FACTORS? EVIDENCE FROM THE BIRTHPLACE IN ENGLAND NATIONAL PROSPECTIVE COHORT STUDY

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Maternal obesity is a risk factor for intrapartum complications but some risks may be attributable to the higher prevalence of co-morbidities. This study evaluated the impact of maternal obesity on outcomes requiring obstetric or neonatal care in otherwise low risk births.

Methods

We analysed 17,230 women without additional risk factors planning obstetric unit birth in the Birthplace cohort. We adjusted for maternal characteristics using Poisson regression. We evaluated two composite outcomes capturing need for obstetric or neonatal care.

Results

The risk of requiring obstetric care (augmentation, instrumental/emergency caesarean delivery, blood transfusion, 3rd/4th degree tear, high dependency care) tended to increase with BMI, but nulliparous women of normal weight had higher absolute risks and percentages of those who had not (0.7% 95% CI (–10.1%, 11.4%), p = 0.89), with the overall percentage of women being 77% and 74% respectively. Improvement was seen in implementation of evidence-based surgical repair. Analysis was based on summary statistics at cluster level, using paired t-tests.

Results

1470 and 2211 women were recruited in groups A and B respectively. No significant difference in mean primary outcome was noted between clusters that had received the intervention and those who had not (0.7% 95% CI (–10.1%, 11.4%), p = 0.89), with the overall percentage of women being 77% and 74% respectively. Improvement was seen in implementation of evidence-based perineal management. A significant reduction was noted in mean percentages of women reporting wound infections and needing suture removal in the early intervention clusters.

Conclusion

PEARLS is the first RCT to assess the impact of a ‘hands-on’ training package on implementation of evidence-based perineal trauma management and clinical outcomes for women. Findings will support improvements in clinical practice and women’s longer-term health.

4.1 AMIPROM: A PILOT RCT ON SERIAL TRANSABDOMINAL AMNIINFUSION VERSUS EXPECTANT MANAGEMENT IN VERY EARLY PROM (ISRCTN 81925898)

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Objective

A randomised controlled multicentre pilot study to assess:

- the feasibility of recruitment and the retention through to long term follow up of participants with very early rupture of membranes;
- short- and long-term outcomes and data to inform a larger, definitive clinical trial.

Participants

Women with singleton pregnancies and confirmed preterm prelabour rupture of membranes between 16th and 24th weeks gestation.