P06.10: Prediction of small for gestational age using uterine artery Dopplers as part of multiparameter pragmatic approach in the second trimester.


Objectives: One of the issues in evaluating UtA Doppler as a screening test is that it is often considered in isolation. The aim of this study is to evaluate the performance of a multiparameter test, in the screening for SGA at birth, using the combination of pregnancy risk factors, second trimester UtA Doppler results and related serial growth scans policies.

Methods:
- Prospective study of 1077 pregnant women at UCLH.
- UtA Dopplers abnormal when sum was >2.5 at anomaly scan.
- Women were assigned to 4 different monitoring groups according with risk factors and UtA Doppler results.
- Data were analysed reporting sensitivity, specificity, PPV, NPV of the multiparameter test in case of abnormal UtA Doppler in low risk women (B vs A) and high risk women (D vs C).
- Outcome: SGA on scan, and confirmed at birth (<10th centile IG21 charts)

Results: Data was available in 864 cases, 51 (5.90%) were SGA at birth. UtArt Dopplers was abnormal in 91% of those cases. The overall sensitivity, specificity, PP and NPV were, 33, 88, 16, and 95%, respectively. When women were assigned to group B comparing with group A, sensitivity and NPV were similar to the all population (33 and 96% respectively). However, SGA detection rate in group B doubled (8/16). Comparing high risk versus the intermediate-high risk group (D versus C), sensitivity was higher (58%); with a lower negative predictive value (91%).

Conclusions: Uterine artery Doppler in the second trimester improves detection rate. Negative predictive value in low risk women can justify its use routinely.

MONITORING GROUPS

A) Low risk: no maternal risk factors + normal UtArt: fundal height measurement only.
C) Intermediate-high risk: maternal risk factors present+ normal UtArt: 28 & 36 weeks growth scans.
D) High risk: maternal risk factors present + abnormal UtArt: 28, 32 & 36 weeks growth scans.