P06.09: Antenatal prediction of small for gestational age using uterine artery Dopplers as part of multiparameter test in the second trimester.


Objectives: Uterine artery Doppler as a screening test is often considered in isolation. The aim of this study is to evaluate the performance of a multiparameter test, in the screening for SGA before birth, using the combination of pregnancy risk factors, second trimester UtA Dopplers 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. 50% of SGA were detected antenatally. In groups B & D, sensitivity and NPV of the tests were high (40 and 60%; 56 and 36% respectively), leading to the detection of 4/10 and 9/15 more SGA cases assigning women to group B and D monitoring.

Conclusions: UtArt Doppler in the second trimester, as a part of a multiparameter test in screening for SGA antenatally, could increase the detection rate, particularly in low risk women by 40%.

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.