The mean gestational age at booking was 15 ± 3.5 weeks with systolic blood pressure (SBP) of 124 ± 3.5 mmHg and diastolic blood pressure (DBP) of 75 ± 15 mmHg. The mean gestational age at diagnosis was 28.4 ± 4.0 weeks gestation. The mean SBP at diagnosis was 153.0 ± 32.0 mmHg and DBP was 97.9 ± 11.6 mmHg. Most women were delivered by Caesarean section (n = 24, 77.4%). The median gestational age at delivery was 30.6 ± 3.6 weeks. In terms of neonatal outcomes, the median birthweight was 1036.8 ± 64.6 g. Sixteen percent of pregnancies ended in intrauterine demise (IUD) (n = 5). A total of 26 (96.3%) infants were admitted to the special care nursery. The most common UA abnormality was an elevated PI (n = 17, 54.8%) and 22 (71%) patients showed redistribution in the MCA. Five patients showed DV abnormalities. The lowest mean birth weight was seen in the DV group, (650 g) and all infants in this group were delivered by C-section and all had neonatal deaths. Sixty percent of infants in the ductus venosus group were ventilated versus 23.8% in the MCA and UA group and 20% in the UA group. CONCLUSIONS: Most fetuses less than thirty weeks had absent or reversal of end diastolic flow (AREDF) in the UA while in those greater than thirty weeks the most common finding was an elevated umbilical artery pulsatility index. No finding of reversal of end- diastolic flow was seen in fetuses greater than thirty weeks. An explanation for this is that pregnancies affected by preeclampsia less than thirty weeks usually have more severe disease and therefore more severe uteroplacental insufficiency resulting in findings of more absent and reversal of end diastolic flow (AREDF) in this group. When comparing doppler abnormality groups, the ductus venosus group had the lowest mean birthweight for gestational age and all infants were delivered by Caesarean section. All the neonates in this category had neonatal deaths. Late changes in DV dopplers signifies fetal cardiovascular compromise and awaiting evidence of DV abnormalities may mean that the fetus has already decompensated. We found that cerebral redistribution or brain- sparing did not impact on neonatal outcome when compared to UA doppler abnormality. Our study suggets that gestational age less than thirty weeks and abnormal DV dopplers are associated with higher neonatal deaths, therefore, these are important predictors of outcome in growth-restricted fetuses in severe preeclampsia.

P3-22

Prenatal diagnosis of alveolar capillary dysplasia with misalignment of the pulmonary veins

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OBJECTIVES: Alveolar capillary dysplasia with misalignment of the pulmonary veins (ACD/MPV) causes persistent pulmonary hypertension in a newborn. Prenatal confirmation of ACD/MPV cannot be confirmed by ultrasound alone, thus to date, reported cases are derived from postnatal confirmation via pathology of neonatal pulmonary tissue. This report describes the utilization of prenatal snp-based microarray findings for the prenatal diagnosis of ACD/MPV and the impact made on both antenatal and postnatal care of the patient and fetus. METHODS: This report is the presentation of a case study. RESULTS: A thirty-seven year old, primagravid patient presented to maternal fetal care due to concern for a cystic hygroma and echogenic bowel in the first trimester. The patient underwent a chorionic villus sampling procedure in which snp microarray analysis was performed. Results of the snp microarray study detected an 887 Kb deletion at 16q24.1-24.2. The patient was then referred to a multidisciplinary fetal care center at a university-based hospital. The patient was counseled by a genetic counselor who identified concern for ACD/MPV based on the previously identified microdeletion, which included two genes, FOXF1 and FOXC2. Heterozygosity for the FOXF1 and FOXC2 genes has been cited as a cause for postnatal demise of infants with ACD/MPV. Subsequent monthly fetal ultrasonography assessment was notable for a complex cardiac abnormality including atrioventricular septal defect and pulmonary venous anomalies, and ileal atresia. The patient was counseled of the likely poor prognosis, and perinatal palliative care services were involved to assist in preparation of the birth plan and fetal care plan. The pregnancy was delivered at 39 weeks gestation by cesarean section with apgar scores 8 and 9, respectively. The neonate expired on day two of life while on ventilator support due to respiratory distress. Diagnosis CONCLUSIONS: This is the first reported prenatal diagnosis of ACD/MPV devoid of a family history. In this case, prenatal diagnosis of ACD/MPV was only possible by the availability and interpretation of a prenatal snp microarray study. Having a prenatal diagnosis allowed delivery planning and anticipation of neonatal care including essential lung biopsy to confirm diagnosis.

P3-23

Clinical significance of novel 3D HDlive silhouette and HDlive flow

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OBJECTIVES: 3Dlive Silhouette and HDlive flow equipped on new ultrasound system have been installed in October, 2014. This revolutionary advance of novel techniques may possess an infinite potential from its attractive images. The aim of this study was to investigate images with new technology and discuss the potential of clinical significance in prenatal imaging. METHODS: Between October and December of 2014, 1,125 cases were examined by new ultrasound machines (Voluson E10, GE healthcare, Milwaukee, USA). Various organs and vascularity were demonstrated by using new technology. RESULTS: By using these new applications, can demonstrate completely different fetal images from conventional ultrasound images. From early pregnancy, HDlive silhouette could depict intracorporeal cystic area such as brain vesicles, ventricles, eye lens/hyaloid and cystic legions such as ventriculomegaly, fused ventricle, enlarged bladder and renal cysts. Furthermore, skeletal structure could be demonstrated. HDlive flow demonstrates early intrauterine