360 Ultrasound detected subchorionic hemorrhage: what are the implications?

Shayna Norman[1], Anthony Odibo[1], George Macones[1], Alison Cahill[1]
[1]Washington University in St. Louis, St. Louis, Missouri

OBJECTIVE: To estimate the association between the sonographic diagnosis of subchorionic hemorrhage (SCH) and adverse pregnancy outcomes.
STUDY DESIGN: This was a retrospective cohort study of all consecutive women undergoing routine ultrasound prior to 22 weeks with a singleton gestation at two institutions from 1990-2007. Presence or absence of SCH defined the two study groups. The primary outcomes were abruption, intrauterine growth restriction (IUGR) defined as birth weight < 10th %ile, non-anomalous intrauterine fetal demise (IUFD) after 20 weeks, pre-eclampsia (PEC), preterm premature rupture of membranes (PPROM), and preterm delivery (PTD) <37 weeks and <34 weeks. Univariate, bivariate, and logistic regression analyses were performed.
RESULTS: Of the 63,966 women in the patient population, 1081 had SCH (1.7%). Women with SCH were at increased risk for developing abruption and for PTD, even after adjusting for bleeding during pregnancy, chronic hypertension, tobacco use, and prior PTD.

	SCH (n=1081)	No SCH (n=62885)	aOR (95% CI)	P
Abruption (n=432)	3.6%	0.6%	2.6 (1.8-3.7)	<0.01
PTD <37 (n=6601)	15.5%	10.5%	1.3 (1.1-1.5)	<0.01
PTD <34 (n=1774)	5.3%	2.8%	1.5 (1.1-2.0)	<0.01
PPROM (n=1484)	4.1%	2.3%	1.3 (1.0-1.8)	0.07
IUGR (n=8159)	13.0%	13.1%	1.1 (0.9-1.4)	0.59
IUFD (n=445)	1.3%	0.8%	1.4 (0.8-3.1)	0.21
PEC (n=4683)	6.4%	7.5%	0.8 (0.6-1.1)	0.18

CONCLUSION: Women with ultrasound detected SCH prior to 22 weeks are at increased risk for abruption, preterm delivery, and a trend towards PPROM, but are not at increased risk for other adverse pregnancy outcomes. These findings may identify patients at risk for PTD.
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361 Fetal hydronefrosis (HY): a contribution to a challenging diagnosis

Cristina Plevani[1], Anna Locatelli[1], Giuseppe Paterlini[1], Valentina Canti[1], Patrizia Vergani[1]
[1]University of Milan - Bicocca, Monza, Italy

OBJECTIVE: To evaluate the postnatal course of fetal HY and to assess the ability of prenatal US to predict an unfavourable outcome.
STUDY DESIGN: Six years (2002-2007) cohort retrospective study including fetuses with HY with 100% infant follow-up. US was performed in the II and III trimester. At the last scan HY was classified as: I degree (5-7mm), II degree (8-15 mm) or III degree (> 15 mm). Postnatal US was performed at 1, 3, 6 months.
RESULTS: HY was diagnosed in 109/22,137 fetuses (0.7%), with 143 kidneys involved. Postnatal outcome was favourable in 82% of the affected kidneys, with HY regression in 3.3 ± 3.1 months. In 18% postnatal outcome was unfavourable, with a diagnosis of significant

uropathy. The risk of uropathy was 11%, 18% and 46% for HY of I, II and III degree, respectively (P=0.03). There was a significant difference between the value of the average antero-posterior diameter of renal pelvis in favourable outcome group (9.6 ± 3.7 mm) and unfavourable outcome group (15.9 ± 9.3 mm) (p<0.001). The most optimal threshold of antero-posterior (AP) pelvic diameter to predict significant uropathy was 7 mm (sens.100%, spec.23%).
CONCLUSION: The risk of uropathy increases significantly according to the degree of antenatal HY. Postnatal follow-up studies are warranted if the AP pelvic diameter is ≥7 mm in the III trimester of pregnancy.
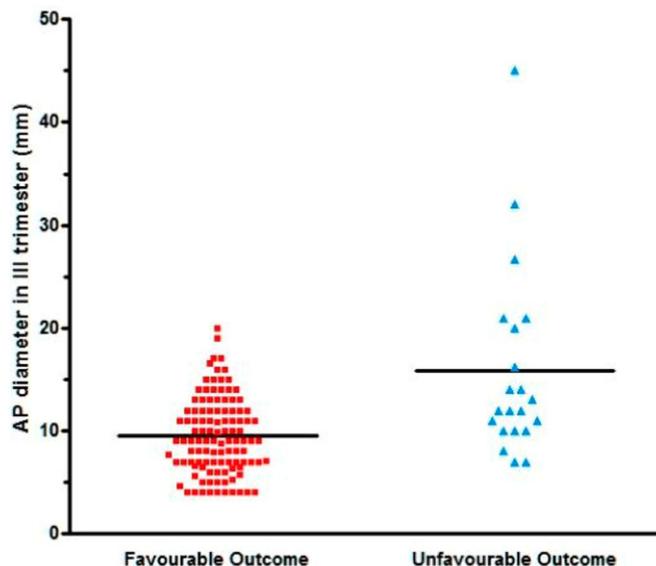
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362 Assessing the optimal definition of oligohydramnios associated with adverse pregnancy outcomes

Anthony Shanks[1], Methodius Tuuli[1], Caren Schaecher[1], Anthony Odibo[1], Roxane Rampersad[1]
[1]Washington University in St. Louis, St. Louis, Missouri

OBJECTIVE: The optimal definition of oligohydramnios associated with adverse pregnancy outcomes is still unclear. Our objective was to compare the use of amniotic fluid index (AFI) < 5 cm to < the 5th percentile for gestational age in predicting adverse perinatal outcomes.
STUDY DESIGN: A retrospective cohort study of pregnancies presenting to our prenatal ultrasound units from 1998-2008. Study subjects were identified by AFI < 5 cm and < 5th percentile for gestational age. The primary outcome measure was admission to the neonatal intensive care unit (NICU). Secondary outcomes included length of hospital stay, cesarean delivery, respiratory distress and Apgar scores. Relative risks were calculated for each outcome measure. The screening efficiency of each criteria of oligohydramnios for the primary outcome was determined. McNemar's test was used to compare the two criteria.
RESULTS: 17,887 patients had complete information for analysis. There were 145 NICU admissions among the 904 patients with AFI < 5 cm (RR 2.2, [95%CI 1.88-2.58]) compared to 235 among the 1429 patients with AFI < 5th percentile for gestational age (RR 2.37, [95%CI 2.08-2.69]). For pregnancies with AFI > 5 cm but < 5th percentile for gestational age the RR for NICU admission was 2.30 (95%CI 1.89-2.80). There was a significant difference between the two criteria for oligohydramnios in predicting NICU admission (McNemar 2 p<0.001). The sensitivity and specificity for NICU admission utilizing AFI < 5 was 10.9% (95%CI 9.3-12.7) and 95.2% (95%CI 94.9-95.5) compared to 17.6% (95%CI 15.6-19.8) and 92.5% (95%CI 92.1-92.9) for < 5th % for gestational age.