Does adjustment for fetal weight relate to the likelihood of underlying abnormality in polyhydramnios?

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Introduction
Polyhydramnios – 0.2-1.6% incidence and can be associated with fetal abnormalities.

Physiological urine output varies according to weight. Previous studies have evaluated relevance of adjustment for fetal weight in pregnancy with normal AFI.

The value of normalisation for fetal weight in a population with abnormal amniotic fluid volume is unknown.

Methods
Retrospective observational study.
Specialist maternity hospital with tertiary referral fetal medicine service over a 12 month period.
Multiple pregnancies excluded.
One way ANOVA.

Results
120 cases.
36 (30.0%) diagnosed with structural fetal abnormality following fetal medicine assessment.

Discussion
Severity of polyhydramnios correlates poorly with presence of fetal abnormality.
When AFI is normalised for fetal weight, higher AFI cm/kg has significant association with increased rates of fetal abnormality.
Birthweight also varies significantly between patients with polyhydramnios with and without fetal abnormalities.

Conclusion
AFI normalised for fetal weight is significantly correlated with fetal abnormality in this data set. Further analysis is indicated to determine influence of gestational age as confounder and the types of fetal abnormality.