# A comparison between outcomes of isolated short femur length vs intrauterine growth restriction pregnancies

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## Objective

The finding of isolated short fetal femur length (FL) on ultrasound can present some difficulty in diagnosis and management. It could simply be a normal variant, a marker of chromosomal abnormality, or an indicator of IUGR. Our aim was to analyse the outcomes of all singleton pregnancies referred to the fetal medicine unit in a district general hospital for isolated short fetal femur length and compare it to fetuses with IUGR.

#### Methods

A retrospective study was carried out looking at all singleton pregnancies that were referred to our fetal medicine unit for short femur length below the 10th centile between 2015 and 2017. Computerised maternity database systems were used to gather data on patient demographics, screening, antenatal history, past medical history, family history, smoking status, ultrasound reports, delivery data and maternal and neonatal outcomes. The cohort of 48 patients was split into two groups: isolated short FL (only FL below 10th centile, n = 23) versus intrauterine growth restriction group (estimated fetal weight below 10th centile on ultrasound, n = 25).

## Results

There was no significant difference in infection screen results, rates of smoking or abnormal results for aneuploidy screening in both groups. There was no significant difference in the gestation at delivery for both groups (36. 44 vs 36. 53 weeks). There was a higher rate of induced labour in the IUGR group compared to the isolated short femur group (80% vs 53%). There was no significant difference in the mode of delivery and a non significant increase in the incidence of emergency caesarean sections in the IUGR group (39% vs 17%, p>0. 05). Birthweight was significantly reduced in the IUGR group compared to the isolated short femur group (72% vs43. 5%). There was no significant difference in Apgar scores at 1 and 5 minutes, however there was a non-significant trend towards increased rates of admission to NICU in the IUGR group (36% vs 22%, p>0. 05).

# Conclusion

Although there is reassurance when screening tests and investigations demonstrate no underying pathology in pregnancies with isolated short femur, our results suggest that the pregnancy outcome and neonatal outcome of the two groups are not dissimilar. This suggests that a finding of isolated short femur length may point to underlying pathology which may be part of the spectrum of IUGR. More research needs to be carried out to ascertain whether there needs to be earlier delivery/induction of labour or closer surveillance in this group.