Is estimated fetal weight an accurate representation of actual birthweight in small for gestational age infants at or near term?

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**Introduction**

- Identification of antenatal SGA relies on accurate estimated fetal weight based on USS.
- Growth scans performed within two weeks of delivery fail to identify over 40% of infants SGA <10th and <5th percentiles.

**Aim**

Establish relationship between the estimated fetal weight (EFW) and birthweight.

**Methods**

- Retrospective cohort study (October -December 2017) across two maternity units within one large inner-city London trust.
- Inclusion criteria: Infants born SGA <10th percentile (WHO criteria), growth scan ≤2 weeks of delivery, delivery ≥36 weeks gestation.
- Exclusion criteria: Multiple pregnancies, in-utero transfers, known fetal anomalies, late bookers.
- Data collected from hospital computer databases. EFW was calculated using Hadlock's formula.

<table>
<thead>
<tr>
<th>Total deliveries (n=2086)</th>
<th>SGA scanned within 2 weeks of delivery (n=62)</th>
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</thead>
<tbody>
<tr>
<td>Maternal age (years)</td>
<td>32 (17-50)</td>
</tr>
<tr>
<td>Maternal BMI (kg/m²)</td>
<td>23.8 (16.0-52.5)</td>
</tr>
<tr>
<td>Parity</td>
<td>0 (0-9)</td>
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</tbody>
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**Results**

- Positive correlation between EFW & BW (Pearson rank correlation, p<0.0001, r=0.76).
- Within BWt range (1820-2900g) EFW over predicts BWt by 75g (95% CI -75g to 226g) in the smallest babies and 39g (95% CI -65g to 143g) in the largest babies (linear regression).

**Conclusion**

- Strong correlation between EFW and actual BW.
- As EFW was undertaken up to two weeks before birth, we would have expected the BW to be higher but there is no significant difference between the EFW and the BW.