Placental examination during routine ultrasounds in a Dutch academic hospital

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Introduction
The placenta is often neglected during a routine ultrasound scan. This is somewhat extraordinary, since placenta insufficiency leads to serious maternal and fetal complications. The aim of this study was to investigate to what extent the placenta is examined during routine ultrasounds in a Dutch academic hospital.

Methods
• Questionnaire, 42 closed-ended questions
• Sonographers, gynaecologists, residents MUMC+
• Location, structure, morphology, thickness, umbilical cord insertion
• Scale 1-5 (‘never-always’)
• Ultrasound images and theses
• Descriptive statistics, univariate models and spearman’s correlation coefficient

Results

<table>
<thead>
<tr>
<th>Ultrasound scans/week – placental examination</th>
<th>N</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gynaecologist</td>
<td>2</td>
<td>2,50</td>
</tr>
<tr>
<td>Resident</td>
<td>18</td>
<td>30,00</td>
</tr>
<tr>
<td>Midwife</td>
<td>7</td>
<td>9,60</td>
</tr>
<tr>
<td>Obstetrician</td>
<td>5</td>
<td>15,00</td>
</tr>
<tr>
<td>Ultrasonographer</td>
<td>3</td>
<td>26,70</td>
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</table>

Sig. ,030

<table>
<thead>
<tr>
<th>Placental examination – profession</th>
<th>N</th>
<th>Mean</th>
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</thead>
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<tr>
<td>Gynaecologist</td>
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<tr>
<td>Resident</td>
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<td>2,63</td>
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<td>Midwife</td>
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Sig. ,108

Placental examination – profession

Placental parameters

<table>
<thead>
<tr>
<th>Placental parameters</th>
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</thead>
<tbody>
<tr>
<td>Location</td>
</tr>
<tr>
<td>Structure</td>
</tr>
<tr>
<td>Shape</td>
</tr>
<tr>
<td>Umbilical cord insertion</td>
</tr>
<tr>
<td>Thickness</td>
</tr>
<tr>
<td>Lakes</td>
</tr>
<tr>
<td>Calcifications</td>
</tr>
</tbody>
</table>

Mean

Agree 7%

Disagree 93%

P=0,019

Conclusion
A lack of knowledge on clinical relevance and the amount of ultrasound scans/week seem to be an important feature in poor placental examination. Morphology, umbilical cord insertion and thickness are generally ignored during routine ultrasound. Furthermore, participants are unable to discriminate different placental lakes or calcification grading.