**Objectives**

Assess inter-observer variability of fetal two-dimensional speckle tracking echocardiography (2D-STE)

- Investigation of left (LV) and right (RV) ventricular longitudinal peak systolic strain (LPSS)
- Longitudinal strain rate (LSR)

**Methods**

- 35 late-onset SGA and 35 healthy control fetuses were included in 35.7 ± 2.6 weeks of gestation.
- Apical 4-chamber view, 2D cine loops, original acoustic frame rate (AFR).
- Mean AFR was 126 ± 21 frames per second
- Analyzed offline with a commercial software

**Results**

<table>
<thead>
<tr>
<th></th>
<th>Mean global</th>
<th>1st observer</th>
<th>2nd observer</th>
<th>ICC (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPSS – LV</td>
<td>19.4 ± 5.5</td>
<td>19.0 ± 5.1</td>
<td></td>
<td>0.81 (0.71-0.88)</td>
</tr>
<tr>
<td>LSR – LV (1/s)</td>
<td>1.24 ± 0.34</td>
<td>1.15 ± 0.33</td>
<td></td>
<td>0.77 (0.65-0.75)</td>
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<tr>
<td>LPSS – RV</td>
<td>17.7 ± 4.5</td>
<td>17.6 ± 5.3</td>
<td></td>
<td>0.65 (0.49-0.77)</td>
</tr>
<tr>
<td>LSR – RV (1/s)</td>
<td>1.13 ± 0.37</td>
<td>1.00 ± 0.26</td>
<td></td>
<td>0.50 (0.30-0.66)</td>
</tr>
</tbody>
</table>

**Conclusion**

- Good reproducibility for LV LPSS
- Moderate reproducibility for left ventricular LSR and right ventricular LPSS.
- Poor reproducibility for RV LSR

*Equally contributing first author*.