Discordancy in amniotic fluid volume of twin pregnancy with preterm premature rupture of membrane; oligohydramnios vs normal amniotic fluid

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Objective
To evaluate perinatal outcome according to the status of amniotic fluid in twin pregnancies with preterm premature rupture of membrane (PROM).

Study design
Retrospective cohort study
Study population (n=64)
- pPROM twin delivered preterm (<35 wks)
- Oligohydramnios in one twin / normal amniotic fluid (AFV) in co-twin
Exclusion
- Major malformation
- Twin to twin transfusion syndrome

Definition of oligohydramnios
- Single deepest pocket of AFV ≤2cm

Study outcome
- Adverse neonatal outcome
: neonatal mortality and neonatal morbidity
- Placental inflammation
: histologic chorioamnionitis and funisitis

Statistical analysis
- McNemal test

Table 1. Characteristics of study population

<table>
<thead>
<tr>
<th></th>
<th>Oligohydramnios (n=64)</th>
<th>Normal AFV (n=64)</th>
<th>P*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal age (yrs)</td>
<td>33 (24-44)</td>
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<tr>
<td>Gestational age at pPROM (wks)</td>
<td>29.7 (15.1-34.9)</td>
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<td>Latency period (d)</td>
<td>7 (0-91)</td>
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<tr>
<td>Gestational age at delivery (wks)</td>
<td>31.9 (23.4-34.9)</td>
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<tr>
<td>Presenting fetus</td>
<td>54 (84.4%)</td>
<td>10 (15.6%)</td>
<td>&lt;0.05</td>
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<tr>
<td>Brith weight (kg)</td>
<td>1.5 (0.6-2.6)</td>
<td>1.7 (0.6-2.5)</td>
<td>NS</td>
</tr>
</tbody>
</table>

Figure 1. The risk of adverse neonatal outcome according to the amniotic fluid volume

Figure 2. The risk of placental inflammation according to the amniotic fluid volume

Conclusion
Perinatal outcome is favorable in one twin with normal AFV compared to co-twin with oligohydramnios in twin preterm PROM even though risk of preterm delivery is elevated.