Introduction

- Fetal membranes surround and protect a developing fetus and usually rupture during labour.
- **Preterm Premature Rupture of Membranes (PPROM):** membranes rupture prior to 37 weeks gestation in the absence of regular, painful contractions.1
- PPROM <24 weeks is associated with an increased risk of ascending infection and poor lung growth. Termination of pregnancy (TOP) is often explored, and sometimes recommended, when counselling these patients.

Aims

- To assess the contemporary outcomes for PPROM before 24 weeks to determine whether the approach currently taken by clinicians is appropriate
- **Main outcome measure:** neonatal survival up to one year of age
- Termination of pregnancy considered as a separate outcome

Methodology

- The RMSO has recorded all fetal loss from 20 weeks gestation and all postnatal deaths up to one year of age since 1984 on the PMFA database.
- **Design:** Retrospective study. Cases identified using fetal medicine unit (FMU) database and cross-checked with the PMFA database to obtain data. Data analysed as a whole and as two subgroups; PPROM <20 weeks and 20-24 weeks gestation.
- **Data:** Pregnancy outcome. X² test (p<0.05 significant)
- **Inclusion criteria:** Patients with single pregnancies who experienced PPROM <24 weeks gestation seen at FMU between March 2000 and December 2011 with no history of an invasive procedure

Results

- **Overall survival rate:** 46%
- Recent literature suggests that termination rate has no impact on the pregnancy outcomes in PPROM <24 weeks gestation2. Survival rate excluding TOPs is 54%
- 67% of the live births survived to over a year of age.
- **Subgroup analysis:** The two groups had a significantly different rate of TOP; 22% for PPROM <20 weeks gestation compared with 5% for PPROM 20-24 weeks gestation, respectively (p=0.03). The rate of intrauterine fetal deaths (IUFDs), infant deaths, live births and surviving infants for the two subgroups were not significantly different.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>All Cases</th>
<th>PPROM &lt;20 weeks</th>
<th>PPROM 20-24 weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>% TOP</td>
<td>56</td>
<td>29</td>
<td>27</td>
</tr>
<tr>
<td>% IUFD</td>
<td>29</td>
<td>29</td>
<td>28</td>
</tr>
<tr>
<td>% Live Births</td>
<td>29</td>
<td>29</td>
<td>28</td>
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</tbody>
</table>

Conclusions

- 70% of pregnancies affected by PPROM prior to 24 weeks gestation resulted in live births
- Two thirds of these live births survived to over a year of age.
- Better prognosis than reported in similar literature3
- The outcome for PPROM <20 weeks seems no worse than PPROM <24 weeks gestation, so a more pessimistic view of women with earlier PPROM seems unjustified, but more terminations were performed for PPROM <20 weeks.
- This study is relevant to NHS clinicians because it was carried out in England over an eleven year period with a comparatively large sample size.

Limitations: the study was retrospective rather than prospective; the sample was from a tertiary centre rather than a population; only limited data availability for analysis morbidity in survivors

References


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