Supplementary table 1. Demographic characteristics of the PPROM Subgroup (No PPROM vs. PPROM25).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variables** | **No PPROM** | **PPROM25** | **Total** | ***p-*value** |
| (n=5,702) | (n=402) | (n=6,104) |
| Gestational age (wk) | 28.9±2.8 | 26.1±1.9 | 28.8±2.8 | <0.001\* |
| Birth weight (g) | 1,083.4±281.5 | 873.8±234.9 | 1,069.6±283.5 | <0.001\* |
| 1-min Apgar score | 4.7±2.0 | 3.4±1.8 | 4.6±2.0 | <0.001\* |
| 5-min Apgar score | 6.9±1.8 | 5.8±2.0 | 6.8±1.8 | <0.001\* |
| Male sex, n (%) | 2,851 (50.0) | 212 (52.7) | 3,063 (50.2) | 0.289  |
| Small for gestational age, n (%) | 1,673 (29.3) | 30 (7.5) | 1,703 (27.9) | <0.001\* |
| Cesarean section, n (%) | 4,607 (80.8) | 271 (67.4) | 4,878 (79.9) | <0.001\* |
| Multiple pregnancy, n (%) | 2,145 (37.6) | 138 (34.3) | 2,283 (37.4) | 0.188  |
| Inborn, n (%) | 5,555 (97.4) | 399 (99.3) | 5,954 (97.5) | 0.022\*  |
| Pregnancy induced hypertension, n (%) | 1,407 (24.7) | 3 (0.8) | 1,410 (23.1) | <0.001\* |
| Maternal DM, n (%) | 501 (8.8) | 22 (5.5) | 523 (8.6) | 0.022\*  |
| Antenatal steroid, n (%) | 4,385 (78.0) | 340 (85.4) | 4,725 (78.5) | 0.001\*  |
| Chorioamnionitis, n (%) | 1,342 (28.3) | 234 (65.9) | 1,576 (31.0) | <0.001\* |
| Oligohydramnios, n (%) | 231 (9.3) | 145 (36.1) | 676 (11.1) | <0.001\* |
| Duration of PPROM (d) | 0.3±0.3 | 31.3±56.9 | 10.2±35.1 | <0.001\* |
| pH within 1 hour after birth | 7.28 (7.21-7.34) | 7.23 (7.14-7.31) | 7.28 (7.21-7.34) | <0.001\* |
| \* p<.05Data presented as mean and standard deviation and discrete data presented as counts with percentage of cohort.PPROM: preterm premature rupture of membranes; DM: diabetes mellitus |

Supplementary table 2. Univariate analysis of the clinical factors associated with mortality and morbidities.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Total (N=804)** | 　 | **PPROM25 (N=402)** |
|  | **Early pulmonary hypertension** | **Mortality** | **BPD (≥moderate)** | **IVH** **(≥Gr. Ⅲ)** | **Composite morbiditya** |  | **Early pulmonary hypertension** | **Mortality** | **BPD (≥moderate)** | **IVH** **(≥Gr. Ⅲ)** | **Composite morbidity** |
| 　 | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) | 　 | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) | OR (95% CI) |
| Gestational age (wk) | 0.85 (0.73, 0.99)\* | 0.63 (0.57, 0.71)\* | 0.71 (0.65, 0.79)\* | 0.63 (0.55, 0.72)\* | 0.65 (0.59, 0.71)\* |  | 0.92 (0.77, 1.09) | 0.69 (0.60, 0.80)\* | 0.75 (0.66, 0.86)\* | 0.65 (0.54, 0.79)\* | 0.69 (0.61, 0.79)\* |
| Birth weight (g) | 0.99 (0.99, 1.00) | 0.99 (0.99, 0.99)\* | 0.99 (0.99, 0.99)\* | 0.99 (0.99, 0.99)\* | 0.99 (0.99, 0.99)\* |  | 0.99 (0.99, 1.00) | 0.99 (0.99, 0.99)\* | 0.99 (0.99, 0.99)\* | 0.99 (0.99, 0.99)\* | 0.99 (0.99, 0.99)\* |
| 1 min Apgar score | 0.82 (0.71, 0.95)\* | 0.72 (0.66, 0.79)\* | 0.81 (0.74, 0.89)\* | 0.86 (0.77, 0.95)\* | 0.74 (0.68, 0.81)\* |  | 0.85 (0.71, 1.01) | 0.76 (0.66, 0.87)\* | 0.91 (0.80, 1.03) | 0.99 (0.85, 1.15) | 0.83 (0.73, 0.93)\* |
| 5 min Apgar score | 0.79 (0.70, 0.89)\* | 0.76 (0.70, 0.83)\* | 0.83 (0.76, 0.91)\* | 0.86 (0.79, 0.95)\* | 0.77 (0.70, 0.84)\* |  | 0.78 (0.68, 0.91)\* | 0.75 (0.67, 0.84)\* | 0.92 (0.81, 1.05) | 0.94 (0.82, 1.08) | 0.85 (0.75, 0.96)\* |
| Small for gestational age | 1.10 (0.51, 2.39) | 2.23 (1.45, 3.44)\* | 1.24 (0.73, 2.10) | 1.16 (0.67, 2.02) | 1.50 (0.92, 2.44) |  | 1.66 (0.60, 4.58) | 2.78 (1.31, 5.92)\* | 0.65 (0.24, 1.77) | 1.39 (0.50, 3.89) | 1.05 (0.45, 2.44) |
| Antenatal steroid | 1.09 (0.54, 2.21) | 0.58 (0.40, 0.86)\* | 0.98 (0.63, 1.53) | 0.69 (0.43, 1.11) | 0.85 (0.57, 1.26) |  | 1.12 (0.45, 2.78) | 0.73 (0.40, 1.34) | 1.36 (0.70, 2.64) | 0.62 (0.29, 1.29) | 1.21 (0.66, 2.22) |
| Chorioamnionitis | 1.28 (0.74, 2.20) | 0.86 (0.62, 1.20) | 1.36 (0.97, 1.91) | 1.14 (0.77, 1.70) | 1.24 (0.91, 1.71) |  | 1.01 (0.55, 2.13) | 0.93 (0.56, 1.55) | 1.89 (1.13, 3.16)\* | 1.53 (0.79, 2.95) | 1.79 (1.11, 2.90)\* |
| Oligohydramnios | 7.12 (4.10, 12.38)\* | 1.69 (1.18, 2.43)\* | 1.18 (0.79, 1.79) | 0.78 (0.48, 1.26) | 1.36 (0.93, 1.98) |  | 6.85 (3.34, 14.01)\* | 2.13 (1.35, 3.38)\* | 1.12 (0.68, 1.84) | 0.71 (0.39, 1.32) | 1.31 (0.82, 2.10) |
| Duration of PPROM (d) | 1.01 (1.00, 1.03) | 0.99 (0.99, 1.00) | 0.99 (0.99, 1.01) | 0.98 (0.98, 1.00) | 0.99 (0.99, 1.00) |  | 1.01 (0.99, 1.03) | 0.99 (0.98, 1.00) | 0.98 (0.97, 1.00) | 0.98 (0.97, 1.00) | 0.98 (0.97, 1.00) |
| PPROM25 | 3.25 (1.78, 5.93)\* | 0.87 (0.64, 1.19) | 1.65 (1.19, 2.28)\* | 0.75 (0.51, 1.08) | 1.43 (1.06, 1.93)\* | 　 |  | 　 | 　 | 　 | 　 |
| Early pulmonary hypertension |  | 3.72 (2.18, 6.35)\* | 2.08 (0.90, 4.83) | 2.10 (1.13, 3.90)\* | 3.19 (1.49, 6.82)\* |  |  | 4.47 (2.36, 8.47)\* | 1.71 (0.64, 4.54) | 2.79 (1.35, 5.76)\* | 2.71 (1.11, 6.59)\* |

\* p <.05

aMortalilty, bronchopulmonary dysplasia, high-grade intraventricular hemorrhage, or periventricular leukomalacia.

OR: odd’s ratio; CI: confidence interval; PH: pulmonary hypertension; PPROM: preterm premature rupture of membranes.

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