

Supplementary materials

Association of severe retinopathy of prematurity and bronchopulmonary dysplasia with adverse neurodevelopmental outcomes in preterm infants without severe brain injury

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Table S1. Perinatal and neonatal characteristics of study population after excluding infants without Bayley-III

| | No IVH (n=146) | Low-grade IVH (n=36) | p-value |
|------------------------|-------------------|-------------------------|---------|
| GA (week) | 30 (28–31.6) | 28.4 (26.8–30.3) | <0.001 |
| Birth weight (g) | 1195 (940–1340) | 945 (670–1225) | <0.001 |
| SGA | 45 (31.3) | 11 (31.4) | 1.000 |
| IVF | 67 (45.9) | 16 (44.4) | 1.000 |
| Male | 68 (46.6) | 20 (55.6) | 0.357 |
| C/S | 91 (62.3) | 24 (66.7) | 0.702 |
| hCAM | 57 (40.1) | 17 (50) | 0.336 |
| PPROM >18 hr | 44 (31.7) | 17 (48.6) | 0.075 |
| Oligohydramnios | 31 (23.1) | 10 (30.3) | 0.377 |
| PIH | 21 (14.7) | 8 (22.9) | 0.305 |
| Antenatal steroid | 64 (43.8) | 19 (52.8) | 0.356 |
| RDS | 63 (43.2) | 26 (72.2) | 0.003 |
| Treated PDA | 42 (28.8) | 16 (44.4) | 0.029 |
| Moderate to severe BPD | 44 (30.3) | 15 (41.7) | 0.234 |
| Severe ROP | 10 (6.9) | 5 (13.9) | 0.181 |
| NEC | 6 (4.1) | 3 (8.3) | 0.384 |
| Sepsis | 8 (5.5) | 4 (11.1) | 0.258 |
| Hospital stay (days) | 59 (35–83) | 74.5 (56.5–96.5) | 0.007 |

Data are shown as the n (%) or median (interquartile range). Abbreviations: BPD, bronchopulmonary dysplasia; C/S, cesarean section; GA, gestational age; hCAM, histologic chorioamnionitis; IVF, in vitro fertilization; IVH, intraventricular hemorrhage n, number in group; NEC, necrotizing enterocolitis; PDA, patent ductus arteriosus; PIH, pregnancy induced hypertension; PPROM, preterm premature rupture of membrane; RDS, respiratory distress syndrome; ROP, retinopathy of prematurity; SGA, small for gestational age.

Table S2. Univariate and multivariate analysis for combined neurodevelopmental impairment after excluding infants without Bayley-III.

| | Univariate analysis | | | Multivariate analysis | | | VIF |
|------------------------|---------------------|--------------|---------|-----------------------|--------------|---------|-------|
| | OR | 95% CI | p-value | adjusted OR | 95% CI | p-value | |
| GA (week) | 0.93 | (0.80–1.09) | 0.397 | 1.02 | (0.76–1.38) | 0.884 | 2.660 |
| SGA | 4.54 | (1.86–11.07) | 0.001 | 10.75 | (2.53–45.65) | 0.001 | 2.660 |
| RDS | 1.68 | (0.71–3.97) | 0.235 | 3.09 | (0.68–13.97) | 0.142 | 1.970 |
| Treated PDA | 1.51 | (0.63–3.61) | 0.350 | 1.00 | (0.32–3.16) | 0.996 | 1.840 |
| Moderate to severe BPD | 4.67 | (1.92–11.36) | 0.001 | 2.53 | (0.79–8.10) | 0.117 | 1.550 |
| NEC | 3.43 | (0.80–14.72) | 0.097 | 1.29 | (0.21–7.87) | 0.781 | 1.330 |
| Severe ROP | 7.24 | (2.35–22.34) | 0.001 | 7.62 | (1.41–41.28) | 0.019 | 1.250 |
| Sepsis | 3.55 | (0.98–12.81) | 0.053 | 2.94 | (0.54–15.93) | 0.212 | 1.140 |
| Low grade IVH | 1.34 | (0.49–3.64) | 0.569 | 0.75 | (0.21–2.63) | 0.657 | 1.100 |

Data are shown as the n (%) or median (interquartile range). Abbreviations: BPD, bronchopulmonary dysplasia; CI, confidence interval; GA, gestational age; IVH, intraventricular hemorrhage; n, number in group; NEC, necrotizing enterocolitis; OR, odds ratio; PDA, patent ductus arteriosus; RDS, respiratory distress syndrome; ROP, retinopathy of prematurity; SGA, small for gestational age; VIF, variance inflation factor