

Chorioamnionitis and Outcome in Extremely Preterm Infants

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Abstract

Introduction: Chorioamnionitis is a risk factor for preterm delivery. Intrauterine infection leads to the fetal inflammatory response which is characterised by elevated cytokine levels. Chorioamnionitis is reported to cause accelerated but abnormal lung maturation, resulting in decreased incidence of respiratory distress syndrome (RDS) but increased chronic lung disease (CLD), and predisposes the infant to cerebral injury. **Objective:** To investigate the relation between chorioamnionitis and RDS, CLD, cerebral lesions, neurodevelopmental outcome and mortality in a cohort of extremely premature infants. **Materials and Methods:** Infants born between 1997 and 2001 with a gestational age of less than 28 weeks or a birth weight of less than 1000 g were divided into two groups: Group 1 with evidence of chorioamnionitis and Group 2 without. **Outcomes** of these two groups of infants were compared. **Results:** A total of 388 infants were included (105 in Group 1 and 283 in Group 2). Chorioamnionitis was significantly associated with an increased risk of extreme preterm delivery. Group 1 showed a trend towards an increased incidence of CLD and mortality, while the incidence of periventricular leukomalacia, retinopathy of prematurity (ROP) and necrotising enterocolitis (NEC) were similar between the two groups. Subgroup analysis of 2-year neurodevelopmental outcome showed an increased trend towards cerebral palsy and visual impairment, while the incidence of developmental delay and hearing impairment are similar between the two groups. **Conclusion:** Extremely preterm infants with chorioamnionitis showed a trend towards an increased incidence of CLD, mortality, cerebral palsy and visual impairment, but a decreased risk of RDS.

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