Alloimmune thrombocytopenia: long-term outcome in children born with intracranial haemorrhage

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Objective

To evaluate the long-term outcome in children with intracranial haemorrhage due to fetal and neonatal alloimmune thrombocytopenia (FNAIT).

Methods

All pregnancies with a foetus with intracranial haemorrhage caused by FNAIT between 1993 and 2015 were included in this observational cohort study. Neurological, motor and cognitive development was assessed at a minimum of one year of age. Primary outcome were perinatal death or severe neurodevelopmental impairment (NDI). Severe NDI was defined as any of the following: severe cerebral palsy (Gross Motor Function Classification System (GMFCS) ≥ 2), bilateral deafness, blindness, severe motor and/or cognitive development delay (<-2 standard deviation, SD). Moderate NDI was defined as cerebral palsy with GMFCS <2, motor and/or moderate cognitive developmental delay (< -1 SD).

Results

Eighteen pregnancies with a fetus with intracranial haemorrhage due to FNAIT were included in the study. Foetal or neonatal mortality rate was 8/18 (44%). Severe NDI and moderate NDI were diagnosed in 6/10 (60%) and 1/10 (10%) of the surviving children. Only 4/18 (22%) of fetuses survived without severe NDI.

Conclusion

The risk of perinatal death or severe NDI in children with intracranial haemorrhage due to FNAIT is high. Only screening and effective preventive treatment can avoid this burden.