

COGNITIVE AND NEUROLOGICAL OUTCOME OF PRETERM INFANTS AT THE AGE OF 5-8 YEARS WITH POST-HAEMORRHAGIC VENTRICULAR DILATATION REQUIRING NEUROSURGICAL INTERVENTION

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Background: Post-haemorrhagic ventricular dilatation is not necessarily associated with an unfavourable outcome. Preterm infants who develop progressive PHVD in the absence of associated parenchymal lesions may have a normal neurodevelopmental outcome.

Objectives: To evaluate neurodevelopmental and cognitive outcomes among preterm infants with severe IVH, requiring neurosurgical intervention for their associated PHVD.

Methods: 32 preterm infants with a gestational age (GA) between 26 and 35 weeks were admitted to a neonatal intensive care unit with PHVD requiring neurosurgical intervention, either a ventricular reservoir and/or a ventriculo-peritoneal shunt. All 32 infants were seen in the follow-up clinic and had standardized cognitive, behavioural and neurological assessments between 5 and 8 years of age. For the 23 infants with a GA < 30 weeks, matched controls were available and their outcome was compared with the IVH group.

Results: The majority (59.4%) had no impairments. None of the children with a grade III and eight of the 15 children (53%) with a grade IV haemorrhage developed cerebral palsy. More subtle motor problems assessed with the Movement-ABC score were seen in 39 % (n=9), six of whom had an IVH grade III; the mean IQ of all children was 93.4, and 29% of the children had an IQ < 85 (-1SD). Timing of intervention did not have a beneficial effect on neurodevelopmental outcome. With respect to cognition, no significant differences were found between the IVH group and the control group.

Conclusion: Overall, children with a severe haemorrhage had a more favourable outcome than reported previously.