obtained informed consent from parents of infants in 3 groups: 1: Twin pregnancies that underwent intrauterine laser. 2: MCDA twins who did not meet the clinical criteria for TTTS. 3: Dichorionic diamniotic (DCDA) twins. The MRIs took place at term using a Siemens 1.5 Tesla MRI scanner. T1, T2, ADC and diffusion images were acquired.

Results: 10 sets of twins and 1 set of triplets have consented. (n=23). 7 sets have reached term and have had an MRI (n=14). In our cohort gestation ranged from 25 weeks to 34 weeks. To date 2 MRIs have been reported as abnormal. 1 sibling in the laser group and 1 sibling in the DCDA group.

Conclusion: This group of infants and their MRI findings represent a spectrum of findings in multiple births. Follow up at 2 years with Bayleys is planned and will ascertain any long-term correlation.

597

ELEVATED LEUKOCYTE COUNT PREDICTS MORTALITY IN INFANTS WITH NEONATAL ENCEPHALOPATHY

P. Lakatos¹, **E.J. Molloy**², J. Kardasi¹, M. Bango¹, M. Szabo¹

¹1st Department of Paediatrics, Semmelweis University, Budapest, Hungary, ²Paediatrics, Royal College of Surgeons in Ireland, Dublin, Ireland

Background and Aims: An elevated peripheral leukocyte count has been associated with increased risk of neurological disability in asphyxiated term neonates. We aimed to examine the alternations in routine haematological indices in infants with severe asphyxia

Methods: 70 infants referred to the tertiary referral centre of Semmelweis University Budapest 1st Dept of Pediatrics with asphyxial encephalopathy and were randomized to either normothermia or hypothermia. Their serial full blood count parameters, clinical outcome and Bayleys assessments were evaluated.

Results: There were 51 survivors and 19 non-survivors in this cohort. 60 infants received hypothermia therapy and the remainder were kept normothermic. There was a significant difference in the white cell count (WCC) in the first 8 hours of life between survivors and non-survivors (23+/-9 v 31+/-11, respectively; p value=0.012). In addition the associated neutrophils were altered (Survivors:72+/-12 v non-survivors:55+/-5%).

However CRP was not significantly different. Here was no correlation between Bayley score and initial WCC in surviving infants.

Conclusions: Altered inflammatory markers may indicate infants at higher risk of death. Further exploration of early inflammatory markers may be useful in early decisions about the use of hypothermia.

598

VLBW INFANTS: ACCELERATED COGNITIVE DEVELOPMENT AT TWO YEARS

M. Slevin, J. Murphy

Neonatology, National Maternity Hospital, Dublin, Ireland

There is a paucity of literature concentrating on the VLBW infant whose development is accelerated. This study addresses a cohort of Infants BW $\leq$ 1500g who had high Bayley Mental Developmental scores ($\geq$ 115).

Methods: VLBW $\leq$ 1500g born in a tertiary 3 Unit were followed up at 2 years corrected age. The Bayley Scales of Infant Development - 11 were used to measure Mental, Psychomotor and Emotional development during the period 1997- 2004.

Results: Of 460 infants assessed 73 (15.7%) infants demonstrated Accelerated Mental Performance (MDI $\geq$ 115). 70% were girls; 30% boys. Linguistic acquisition was a strong feature. Birthweight and Gestational age did not influence outcome. A subtask analysis was performed. 25 tasks consisting of cognitive, language and visual spatial skills were identified. Of these 25 tasks, 56% (14 tasks) of the Accelerated group demonstrated >90% success whereas only 8% (2 tasks) of the Normal Outcome group demonstrated >90% success. Tasks that were most discriminatory in showing a difference between the Accelerated group and the Normal Outcome group were shape discrimination, use of 3 word and contingent utterances, picture naming, picture discrimination, and tower building. Attention skills, task planning and prompt performance were strong features in the Accelerated group.

Conclusion: 16% of our cohort of VLBW infants achieved accelerated performance on the Bayley scale when tested at 2 years. We identified specific tasks that discriminated the performance of the Accelerated group from the Normal group and noted favourable behavioural characteristics that were integral to higher level of task performance.