Delayed visual maturation (DVM): An investigation into the average age of recovery of infants with different types of DVM

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Abstract

Introduction: The research aimed to investigate the average age of recovery in infants with different types of delayed visual maturation (DVM). DVM is a retrospective diagnosis and currently has no treatment. This study gives an evidence based recovery time which can help clinicians to appropriately reassure anxious parents about DVM prognosis. This research is significant as this is the largest participant study about DVM to date.

Methods: This is a retrospective service evaluation of 50 infants with DVM presenting to St James University Hospital (SJUH) between 2012 and 2017. The DVM was classified into either type 1 or type 2. Several key variables were recorded including: patient gender, age at recovery, type of DVM and whether Electrodiagnostic (EDT) testing was used.

Results: STATA analysis showed that the average age of recovery for type 1 and type 2 DVM was 6.708 and 13.464 months respectively. A multivariable linear regression adjusted for gender as a confounder. The average age of recovery was 6.179 months longer for infants with type 2 DVM which is a statistically significant difference (95% CI: 3.214-9.143, P value: <0.001).

Conclusions: This research supports the hypothesis that the age of recovery in type 1 DVM is significantly shorter than type 2 when adjusted for gender. The main limitation is that recovery age is recorded from when the infants attended clinic, however their vision could have recovered prior to this. In the future, additional multi-centre research needs to be conducted looking at larger patient samples to allow for further sub-categorisation of DVM types.