

Grading tuberculous meningitis – in reply

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In reply:

We thank Doctor Baxter for raising two important points concerning the prognosis of young children with tuberculous meningitis. We agree that there is a discrepancy between the original British Medical Research Council (BMRC) TBM grading, which included 'gross pareses' in the most severe grade, and the current, and widely used, modified BMRC grading, which is primarily defined by coma severity. We also agree that stroke is the likely cause of gross paresis and clinical experience suggests these children do indeed have a poor prognosis. However, an alternative scoring system, which accommodates paresis independently from coma, requires derivation from high-quality clinical data and statistical modelling if it is to represent a practice-changing advance to the empirically derived BMRC grade. Unfortunately, there is a lack of the high-quality clinical data required to perform this task, but we hope that the standardised methodology proposed will encourage future research and enable sharing and merging of the required datasets to more accurately define prognosis in all age-groups.

The second point raised was the need to specify that a 'modified Glasgow coma scale' should be used in young children, with a clear indication of the best versions to use in relevant age groups. Various modifications to the coma score have been made to accommodate children less than 5 years of age, who are at different phases of language and motor development. Our proposed standardized methodology did not clarify which scale to use beyond infancy (1). We agree with doctor Baxter that the unified scale developed by James, together with the Grimace scale for intubated children, as summarized in the article by Kirkham et.al. provides the most pragmatic approach to a standardized assessment all children less than 5 years of age (2). In children older than 5 years of age the standard adult Glasgow coma scale is appropriate, which implies that this standardized approach can

be used across the full age range. However, standardization is not easy in children, with wide variation in practice. Even for traumatic brain injury, the most common cause of acute paediatric neurological impairment worldwide, and for which there have been practice guidelines for several years (3), there is no standardization of assessment.

We hope that this clarification will improve the utility of our proposed standardized methods and that more data will accrue over time to substantiate their value and identify the components that require further refinement.

Word count: 396

References

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