



Letter to the Editor

General movements: Longitudinal assessment better than cross-sectional

Keywords: Fidgety movements; Developmental outcome; MRI brain

Dear Sir,

We read with great interest the article by Maeda T, et al. on the association between brain morphological development and the quality of general movements (GMs) [1]. Authors have co-evaluated brain MRI scores and GMs optimality score and correlated both these variables. They have highlighted the fact that co-evaluation of GMs and brain morphology may help in accurate developmental prediction. However, we would like to raise a few concerns.

Since authors compared two possible predictors of developmental outcome in very low birth weight (VLBW) babies, it is imperative to know the developmental outcome of the cohort which would act as a gold standard. In such an extensive study, we are curious to know the status of GMs at fidgety age as well. The appearance of fidgety movements (at 50–56 weeks corrected gestation) is considered the best predictor of future development [2]. Also, assessment of GMs at writhing age has a moderate inter-observer agreement as compared to a near-perfect agreement at fidgety age [3,4]. Considering significant inter-observer variation, it is important that at least two observers should assess GMs [3]. Serial assessment of GMs is essential since abnormal GMs may normalize on follow up and normalization is associated with a good outcome [2].

This study adequately underscores the correlation of GMs at writhing age with brain morphometry. But it would be clinically more desirable to assess their correlation with fidgety movements and the future developmental outcome. Future research may address these important concerns.

Author contribution

PM & RN prepared the initial draft of the manuscript and reviewed the literature, LS – preparation of initial draft of the manuscript, critical review of the manuscript and reviewed the literature, edited the final version of the manuscript.

Conflict of interest

The authors have no conflict of interest to disclose with regard to this article.

Declarations of interest

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References

- [1] Maeda T, Iwata H, Sekiguchi K, Takahashi M, Ihara K. The association between brain morphological development and the quality of general movements. *Brain Dev* 2019;41:490–500.
- [2] Einspieler C, Peharz R, Marschik PB. Fidgety movements-tiny in appearance, but huge in impact. *J Pediatr (Rio J)* 2016;92:S64–70.
- [3] Crowle C, Galea C, Morgan C, Nivak I, Walker K, Badawi N. Inter-observer agreement of the general movements assessment with infants following surgery. *Early Hum Dev* 2017;104:17–21.
- [4] Bernhardt I, Marbacher M, Hilfiker R, Radlinger L. Inter- and intra observer agreement of Prechtl's method on the qualitative assessment of general movements in preterm, term and young infants. *Early Hum Dev* 2011;87:633–9.

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