

Opinion

# Reply to comments on “The association between brain morphological development and the quality of general movements”

Tomoki Maeda \*

*Department of Pediatrics, Oita University Faculty of Medicine, Oita, Japan*

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I appreciate the comments of Saini et al. on our paper. As they mentioned, the longitudinal general movements assessments (GMA) is more informative than the cross-sectional, and GMA in fidgety period is the most useful for predicting cerebral palsy.

On the other hand, the preterm~writhing GMs are more obscure on its pathophysiological significance and interrelationship with brain development than GMs in fidgety period. Therefore, the aim of this study is to clarify the association between the brain morphologic development and the preterm-writhing GMs in very low birth weight infants (VLBWI). VLBWI often present poor repertoire (PR) GMs in neonatal period. The predictive value of PR GMs for later neurological impairments is rather low. The co-evaluation of GMs and brain morphology may lead to more accurate extraction of cases that require early intervention from neonatal period.

We have assessed GMs also in fidgety period. There were only three cases who presented absent or abnormal fidgety pattern in this study cohort. Since the number of cases was small and the statistical analysis could not be done, we did not use the results of the fidgety GMs in the composition of this paper.

Regarding the prognosis, as we described in the limitation section of the paper, we have to track the

neurodevelopment and assess the association with the long term prognosis.

Regarding the inter-observer variation, it is desirable to assess with multiple certificated observer. The accuracy of GMs judgment is confirmed to be high after receiving standardized GMs training course [1]. I have been certificated the ability of GMs assessment by the maximum score in three GM-trust training course over past 10 years. I am the only one who have been certificated by the GM-trust advanced course among the authors of this study, so the results of single observer were used for analysis.

## Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.braindev.2019.03.008>.

## References

- [1] Valentin T, Uhl K, Einspieler C. The effectiveness of training in Prechtl's method on the qualitative assessment of general movements. *Early Hum Dev* 2005;81:623–7.

\* Address: Department of Pediatrics Oita University Faculty of Medicine, 1-1 Idaigaoka, Hasama, Yufu, Oita 879-5593, Japan.

E-mail address: [tmaeda@oita-u.ac.jp](mailto:tmaeda@oita-u.ac.jp)