Teaching Video NeuroImage: Mirror Movements in a 57-Year-Old Woman With *KMT2B*-Related Dystonia

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Neurology® 2023;101:e224. doi:10.1212/WNL.0000000000207144

A 57-year-old woman had bilateral mirror movements (MMs) since birth, which were evident on finger tasks or utensil use. Mild blepharospasm was observed on neurologic examination. Other neurologic and laboratory examinations and brain magnetic resonance imaging were normal. Her 34-year-old daughter had adolescent-onset segmental dystonia affecting the cervical, shoulder, and laryngeal muscles combined with mild MMs (Video 1). Whole-exome sequencing detected no pathogenic variant in *DCC*, *NTN1*, *RADS1*, or other known culprit genes for congenital MMs. A heterozygous mutation in *KMT2B* (c. 1439C > T) was identified in the patient and her daughter, which was classified as likely pathogenic according to the American College of Medical Genetics and Genomics guidelines. Although mirror dystonia has been widely reported in focal hand dystonia, bilateral congenital MMs have rarely been reported in dystonia before. The congenital MMs of this patient and her daughter might be related to the *KMT2B*-related dystonia, and the findings suggested a shared pathophysiology of dystonia and MMs.

Author Contributions

J. Lin: drafting/revision of the manuscript for content, including medical writing for content; major role in the acquisition of data; study concept or design; analysis or interpretation of data. C. Li: drafting/revision of the manuscript for content, including medical writing for content; analysis or interpretation of data. Q. Jiang: major role in the acquisition of data. H. Shang: drafting/revision of the manuscript for content, including medical writing for content; major role in the acquisition of data; analysis or interpretation of data.

Acknowledgment

We thank the patient and her family for participating in this study.

Study Funding

Sichuan Science and Technology Program (Grant No. 2022ZDZX0023).

Disclosure

The authors report no relevant disclosures. Go to Neurology.org/N for full disclosures.

Publication History

Received by *Neurology* September 16, 2022. Accepted in final form January 19, 2023. Submitted and externally peer reviewed. The handling editor was Resident and Fellow Deputy Editor Katherine Fu, MD.

References

- Galléa C, Popa T, Billot S, Méneret A, Depienne C, Roze E. Congenital mirror movements: a clue to understanding bimanual motor control. J Neurol. 2011;258(11):1911-1919.
- Cox B, Cincotta M, Espay AJT. Mirror movements in movement disorders: a review. Tremor Other Hyperkinet Mov (N Y). 2012;2:tre-02-59-398-1.

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Junyu Lin, Chunyu Li, Qirui Jiang, et al. Neurology 2023;101;e224 Published Online before print February 16, 2023 DOI 10.1212/WNL.0000000000207144

This information is current as of February 16, 2023

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