Congenital mirror movements

From piano player to opera singer

Congenital mirror movements (CMM) disorder is characterized by involuntary movements of one side of the body that accompany and mirror intentional movements on the opposite side (OMIM #157600).¹ CMM mostly involve the hands, and affected subjects are unable to perform pure unimanual movements or skilled dissociated movements of the 2 hands. We show a 33-year-old patient with CMM with no abnormality in *DCC* or *RAD51*, the known culprit genes (video on the *Neurology*® Web site at Neurology.org).² He had always dreamed of becoming a piano player but was unable to play properly with both hands despite intensive training. He became an opera singer instead.

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1. Gallea C, Popa T, Billot S, Méneret A, Depienne C, Roze E. Congenital mirror movements: a clue to understanding bimanual motor control. *J Neurol* 2011;258:1911–1919.
2. Méneret A, Depienne C, Riant F, et al. Congenital mirror movements: mutational analysis of *RAD51* and *DCC* in 26 cases. *Neurology* 2014;82:1999–2002.

Supplemental data
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