Teaching Video NeuroImages: Reflexive movement in brain death

Challenges on clinical examination

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A 49-year-old woman found in cardiac arrest at home was resuscitated after 30 minutes. Brain CT revealed diffuse anoxic injury. After 72 hours of targeted temperature management, brainstem examination, EEG, and apnea testing were consistent with brain death. However, with applied nail bed pressure on the left hand, finger flexion was observed (video 1). This movement was deemed a spinal cord–mediated reflex, not inconsistent with brain death. No other spinal reflexes were observed. In a series of brain-dead patients, 13.4% had spinal reflexes elicited. Recognizing the semiology of these reflexes can prevent delay in diagnosis and avoid family and physician confusion.

Author contributions

Dr. Zheng: review of the literature and drafting of the case report. Dr. Garbin Di Luca: review of the literature and video footage. Dr. Margolesky: critical review of the manuscript and final approval of the version to be published.

Study funding

No targeted funding reported.

Disclosure

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

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Neurology 2020;95;e3160 Published Online before print August 14, 2020
DOI 10.1212/WNL.00000000010656

This information is current as of August 14, 2020

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