A 15-month-old child with spinal muscular atrophy presented with refractory myoclonic status epilepticus post cardiorespiratory arrest. During therapeutic burst suppression, the patient developed rhythmic upper extremity movements (video), only during the suppression phase, with cessation in the burst phase. Brain MRI (figure) showed global ischemic injury.

These abnormal movements could arise from deep-seated epileptic focus. However, reflexive, fleeting movements, occurring exclusively during periods of cortical suppression, are likely due to brainstem release phenomenon, secondary to extensive cerebral injury, with relative preservation of the brainstem, and should not be misinterpreted as seizures. Existent literature suggests that ictal SPECT can differentiate between brainstem release and seizure.

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Appendix  Authors

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References
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