

Trapped: acute ischemic stroke presenting as locked-in syndrome in the emergency department

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Locked-in syndrome (LIS) is an extremely rare condition presenting as quadriplegia, bulbar palsy, and anesthesia, while cognition, vertical eye movement, blinking, and hearing are preserved. Early recognition is critical but frequently missed, with studies reporting average delays of up to 16 hours. This is a case of a 41/M, right-handed, security guard coming in for paralysis. Initial vital signs at the triage were 150/80mmHg 71bpm 20cpm 36.6C 99% at RA. Patient is a known hypertensive with poor medication compliance. Ten hours before consult, the patient had a sudden onset left-sided body weakness, consequently affecting the right side. Patient became anarthric and quadriplegic. No history of loss of consciousness, seizures, and head trauma. On physical exam, the patient was noted to be consistently blinking. Further assessment revealed the ability to respond to binary questions through eye blinking. The patient is GCS 11 (E4V1M6), with affectations of all cranial nerves except CN III and IV. The patient is 0/5 on all extremities with an absence of sensation. Babinski reflex is positive bilaterally. While the rest of the physical examination was unremarkable. Initial impression was Locked-in-syndrome sec to Cerebrovascular Disease; Pontine NIHSS 30. Diagnostics were done, the patient was admitted to the Neuro ICU and was diagnosed to have Acute Ischemic Stroke, Top-of-the-Basilar Artery Occlusion. Locked-in syndrome is rare, with at least 60% caused by damage of bilateral ventral pons from vertebrobasilar artery occlusion, which accounts to 1% of strokes. Diagnosis is challenging and can be delayed, particularly if vertical eye movements-often the only preserved voluntary function-are not assessed. It results in severe disability and significant morbidity. Early diagnosis within the window of intervention allows for recanalization and subsequent improvement in the functional outcome. This case highlights the importance of vigilance among ED physicians. Despite its poor prognosis, early diagnosis is essential, as patients with LIS are fully conscious and capable of reasoning, making them vital participants in their own care decisions. Advances in diagnostic and therapeutic modalities for LIS offer new hope for restoring communication and autonomy to patients, allowing them to become active participants in their care rather than silent witnesses to their condition.

Keywords: Locked-in syndrome, emergency medicine, stroke, acute ischemic stroke, top of the basilar artery infarct, emergency department, autonomy, rare, Philippines.