Severe Expressive Dysphasia and an Inverted Comma: Is it Striatocapsular Infarction?

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CLINICAL IMAGE

An 80-year-old right-handed female presented with a 20-hour history of drowsiness and inability to speak. She was neither hypertensive nor diabetic and she was on no medications. Examination revealed severe expressive dysphasia, mild right-sided upper motor neuron facial weakness, dense right-sided weakness, and a right-sided extensor planter reflex. Her routine blood tests were within their normal reference range. A 12-lead ECG uncovered atrial fibrillation. Her urgent non-contrast CT brain scan is shown in figures 1 and 2. The patient’s CT brain scan reveals a well-demarcated, hypodense, inverted comma-shaped area which fits in the left putamen and globus pallidus; this is striatocapsular infarction (SCI). SCI is an uncommon form of “deep” hemispheric ischemic strokes and is defined as a comma-shaped softening in the area of the basal ganglia of at least 3 cm in length and 1 cm in width and results from occlusion of lateral lenticulostriate arteries. The latter stem of the posterior and superior aspect of the main stem of the middle cerebral artery and predominately supply the putamen, parts of the globus pallidus, body of caudate, claustrum, and anterior and posterior limbs of the internal capsule. Cardiac embolization to the origin of the middle cerebral artery is the commonest mechanism. Although the overlying cortex is spared, several victims demonstrate a variety of cortical signs (e.g., dysphasia, neglect, apraxia,...etc.). It has been suggested that there is an additional compromise of the cortical blood supply in those patients, which is not visible on conventional brain imaging.

SCI results in a multitude of speech and language disorders (dysphasia, dysarthria, hypophonia and hypokinesia of speech, and even abulia). Consciousness is usually intact; few patients may become drowsy while exceptionally large infarcts may compress the underlying brainstem and result in progressive obtundation and even coma. The majority of patients develop dense hemiparesis. The arm weakness is usually more severe than the leg’s one and upon recovery, the same “ratio” usually persists [1-3].

REFERENCES
