Aphasia: Conversion/dissociation or organic etiology?

In Broca’s aphasia, ability to speak gets impaired; halting, laborious or inaccurate speech is observed. This is a nonfluent aphasia in which understanding remains intact. Infarction of the cortical or subcortical areas, or stroke, can produce focal neurological deficits, including cognitive and emotional changes. Strokes are easily seen on magnetic resonance imaging (MRI) scans. Depression is common among stroke patients, either because of direct damage to the emotional centers of the brain or because of the patient’s reaction to the disability. This case is presented to emphasize the diagnostic dilemma of organic or functional disorder.

A 45-year-old male patient, educated up to 9th grade, working as a construction site supervisor, not working due to COVID lockdown for 7 months, married for 17 years, having 2 children, belonging to lower socioeconomic class, was brought to the psychiatry outpatient department (OPD) by his wife. The patient was apparently alright 7 months back when he lost his job due to COVID crisis and was unable to find new work. After a month of searching, he became distressed and eventually started sitting aloof and lost in thoughts, interacting less with his wife and children. Eventually, the family noticed him being very sad, not participating in household tasks like before and at times crying. They were worried and tried to cheer him up but to no avail. He confessed to his wife that he felt guilty about his inability to provide for them and at times feels he should not live. However, he desisted out of the concern for his family. The family started supporting him more. Eight days before hospitalization, he completely stopped communicating with them, and no matter how hard the family members tried, he did not speak but would just nod or shake his head, and cough at times. His family members rushed him to a local hospital where he was started on tablet lorazepam 2 mg HS. Since he did not respond after 3 days, the family brought him to the psychiatry OPD. He was a known case of diabetes mellitus and hypertension on treatment for the past 17 years, having 2 children, belonging to lower socioeconomic class, was brought to the psychiatry OPD by his wife. The patient was apparently alright 7 months back when he lost his job due to COVID crisis and was unable to find new work. After a month of searching, he became distressed and eventually started sitting aloof and lost in thoughts, interacting less with his wife and children. Eventually, the family noticed him being very sad, not participating in household tasks like before and at times crying. They were worried and tried to cheer him up but to no avail. He confessed to his wife that he felt guilty about his inability to provide for them and at times feels he should not live. However, he desisted out of the concern for his family. The family started supporting him more. Eight days before hospitalization, he completely stopped communicating with them, and no matter how hard the family members tried, he did not speak but would just nod or shake his head, and cough at times. His family members rushed him to a local hospital where he was started on tablet lorazepam 2 mg HS. Since he did not respond after 3 days, the family brought him to the psychiatry OPD. He was a known case of diabetes mellitus and hypertension on treatment for the past 4 years. He was consuming one packet of tobacco daily and alcohol once a month for 20 years. On central nervous system examination, higher mental functions could not be assessed. Facial asymmetry was present with right-sided deviation of the angle of mouth and eye closure with difficulty. Power in the right upper and lower limbs was reduced to Grade 3/5. Mental status examination showed a kempt, cooperative, non-communicative subject, in touch with reality. Psychomotor activity was slowed. Affect appeared distressed. He had worrying thoughts, ideas of helplessness, hopelessness, worthlessness, and passive death wish. There was no perceptual or cognitive defects. Insight and judgment were unimpaired. MRI showed acute non hemorrhagic infarct in the left corona radiata, centrum semiovale, left insular cortex, subcortical white matter of the left pareto-occipital region in the left middle cerebra artery (MCA) territory. MR angiography showed Left MCA stenosis, reduced blood flow and narrowing at the proximal portion of internal carotid artery (ICA) due to atheromatous plaque at ICA. The Neurologist prescribed Aspirin 75 mg, Clopidogrel 75 mg, Rosuvastatin 20 mg daily and advised Digital subtraction angiography. He is planned to be started on an antidepressant after the procedure.

In this case due to presence of depressive features dissociation was suggested leading to Psychiatry referral and hence it posed a challenge in reaching the correct diagnosis. Aphasia was later found out to be due to an acute infract in left MCA territory rather than due to any psychogenic factor.

Psychogenic, Hysterical, Functional or Conversion aphonia presents with acute sudden loss of voice. The disorder is uncommon with a point prevalence of just 0.4%. It is 8 times more common in females as compared to males. Usually seen in a hypo functional type where when the phonation is tried deliberately with approximation of vocal folds yet they remain open. Another type which is hyper function exists less commonly where a strong contraction of vocal cords is observed. Patient whispers-sometimes without any sound and sometimes in high breathy or strained phonation. Coughing can nearly always be produced. In our patient the aphasia was not due to a Psychiatric cause though the presence of depressive features were evident. MCA occlusion leads to sensory and motor deficits on the contralateral side of the body. In addition with dominant hemisphere lesion-left sided-initally global aphasia occurs which further proceeds to Broca’s aphasia gradually-motor speech disorder. If the lesion is right sided, non-dominant hemisphere-apart from contralateral sensory and motor deficit-spatial perception defects, viz. hemi-neglect, constructional and dressing...
apraxia also occurs. If there is involvement of posterior temporal region then Wernicke’s aphasia can occur.\[2\] The most commonly accepted definition of Aphasia is loss or impairment of verbal communication that occurs due to an underlying brain function. An infarct however small in the distribution of middle cerebral artery can cause small Broca’s aphasia and it is relatively rare phenomenon. If the patient comes with vague neurological compliant along with a preexisting or concurrent psychiatric illness, it becomes a diagnostic dilemma.\[2\] True aphasia is seen in schema of Left MCA-there is difficulty in speech production due to brain injury and sometimes even comprehension is affected. Due to the supply of MCA at the cortex regions-language or speech deficits are also accompanied by contralateral motor or sensory deficits, sometimes visual field deficits are also noticed-as MCA supplies motor, sensory and visual cortex. Strokes that result in aphasia are most often caused by a disruption of blood flow within the left middle cerebral artery.\[3\] The case highlights the importance of searching for an organic cause for aphasia even in the presence of psychiatric symptoms before making a diagnosis of dissociative disorder.

Declaration of patient consent
The authors certify that they have obtained all appropriate patient consent forms. In the form, the legal guardian has given his consent for images and other clinical information to be reported in the journal. The guardian understands that names and initials will not be published and due efforts will be made to conceal identity, but anonymity cannot be guaranteed.

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Conflicts of interest
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