

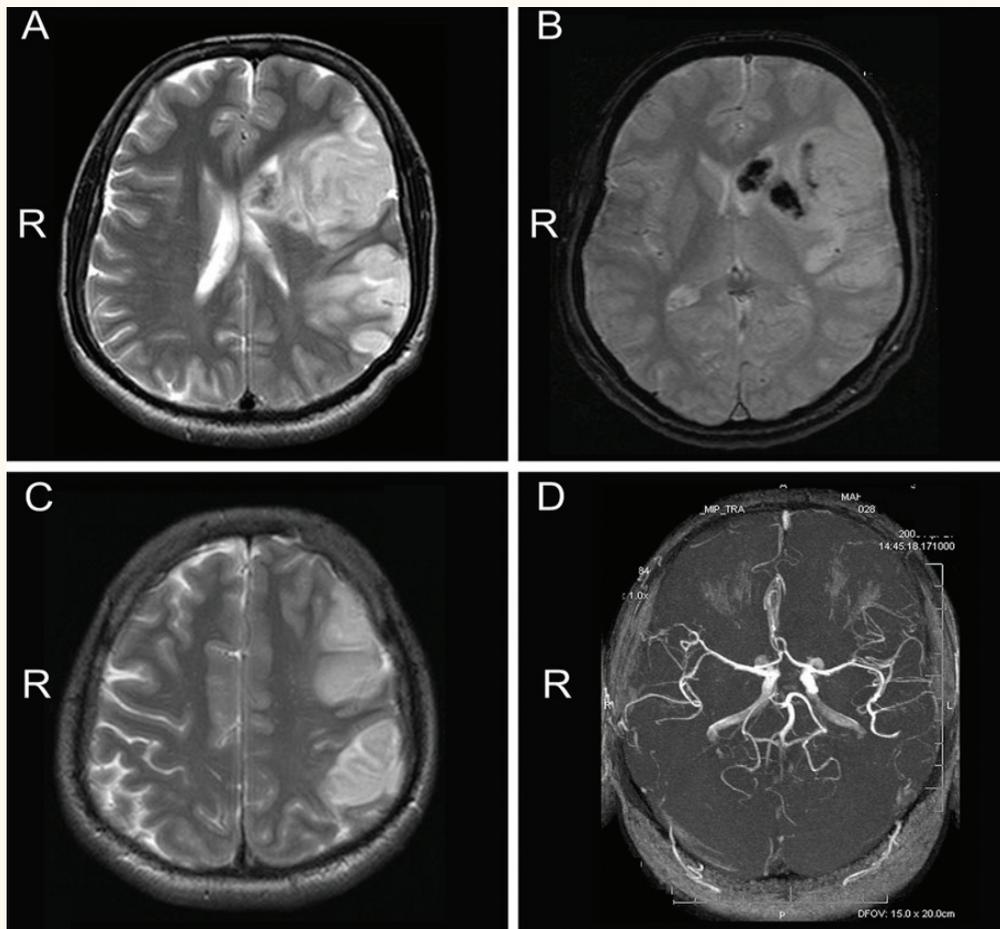
Global Aphasia without Hemiparesis

A neuroradiologic correlation

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Figures 1A to D: Brain magnetic resonance imaging (T2 weighted image) [1A and C] and susceptibility weighted image [B] demonstrating recent ischaemic infarction (bright signal) with sparing of motor cortex [C] in the left fronto-parieto-temporal region along with haemorrhagic conversion (dark signal) in the basal ganglia [B]. The infarction spares the left motor cortex. Note that there is no significant occlusion of the proximal portion of the left middle cerebral artery in magnetic resonance angiography (time of flight sequence, [D]).

A 28 YEAR-OLD MAN, WHILE ON aversion therapy for alcohol abuse with disulfiram, consumed an alcoholic

beverage and developed a sudden onset of difficulty in speaking. Neurologically, he demonstrated global aphasia and right homonymous hemianopia. Right

hemiparesis was conspicuously absent. He had transient atrial fibrillation, but no structural cardiac lesions or other vascular/thrombophilic risk factors. Cranial magnetic resonance imaging (MRI) [Figure 1A] demonstrated recent infarction involving the perisylvian language areas with haemorrhagic transformation in the basal ganglia [Figure 1B] in the distribution of the left middle cerebral artery. The ischaemic infarction spared the motor cortex [Figure 1C], the adjacent subcortical area and the posterior limb of the internal capsule. A magnetic resonance angiogram of the cerebral arteries [Figure 1D] did not reveal any major vessel occlusion. In view of the large infarct and mild haemorrhagic transformation, he was treated with low dose aspirin only. Subsequent cardiac monitoring did not disclose any persistent atrial fibrillation or other arrhythmia. At follow-up, he made a good recovery with significant improvement in auditory comprehension and verbal expression.

Hemiparesis typically accompanies global aphasia. There are only rare cases of global aphasia without hemiparesis and the language outcome is quite variable at follow-up.¹⁻³ In our patient, the lesion distribution in the perisylvian language areas with sparing of the motor cortex and posterior limb of internal capsule accounted for this unusual syndrome of global aphasia without hemiparesis. The most common aetiology of the syndrome is

embolic infarction.¹⁻³ Disulfiram-alcohol interaction has been associated with cardiac events.^{4,5} In our patient, this interaction resulted in transient cardiac arrhythmia (atrial fibrillation) and subsequent embolic infarction. To the best of my knowledge, this is the first report of stroke in the unusual setting of disulfiram-alcohol interaction. Caution should be exercised while prescribing drugs that would elicit disulfiram-like reaction in subjects who lack strong motivation for alcohol de-addiction.

References

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