Marchiafava-Bignami Disease Presenting with Subacute Speech Impairment and Ataxia in a Chronic Alcohol User: A Case Report

Ragulsen S, Mugundhan K, Viveka Saravanan R, Nandakumar V,
MMC & RGGGH, Chennai

AIMS

To report a rare presentation of Marchiafava-Bignami Disease (MBD) manifesting as subacute speech impairment and ataxia in a chronic alcohol user.

To emphasize the importance of neuroimaging in early diagnosis and the role of vitamin supplementation in neurological recovery.

To highlight the variable clinical spectrum of MBD, which may mimic other metabolic or demyelinating disorders.

MATERIALS AND METHODS

A 53-year-old male, chronic alcohol user (>15 years) presented with slurring and slowing of speech, reduced speech output, and unsteadiness of gait for 1 month. Absent speech output and episodes of tonic posturing of limbs for 1 day before admission. History of poor nutrition and weight loss.

Examination Findings:
Apathy, poor attention, dysarthric and nasal speech. Hyperreflexia in upper limbs, mild spasticity, and broad-based ataxic gait. No sensory or cranial nerve deficits.

MRI Brain:
T2/FLAIR hyperintensities involving rostrum, genu, body, and splenium of the corpus callosum with diffusion restriction. Additional subcortical hyperintensity in bilateral perirolandic regions.

Treatment:
High-dose IV thiamine, methylcobalamin, folic acid, vitamin B complex, salt supplementation, and antiepileptics (phenytoin).

RESULTS

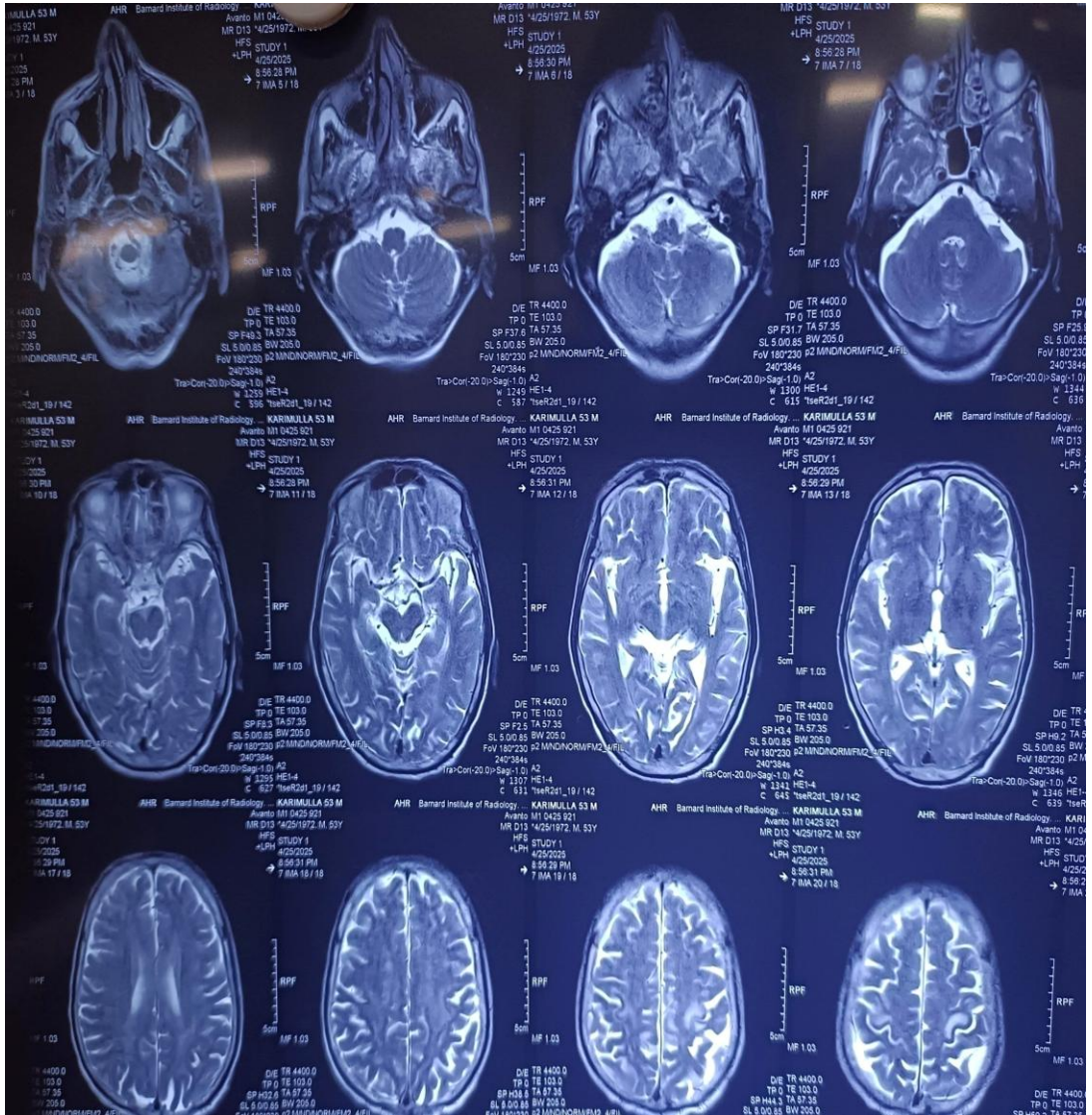
Over 2 weeks of inpatient treatment, the patient showed marked improvement in alertness and speech output. Gait stability improved, and ataxia decreased. No further seizures or neurological deterioration noted. Discharged on oral vitamin supplementation and antiepileptic medication with follow-up advice.

CONCLUSION

Marchiafava-Bignami Disease should be considered in chronic alcohol users presenting with subacute cognitive, speech, or gait disturbances. MRI of the brain is diagnostic, showing callosal lesions characteristic of demyelination and necrosis. Early recognition and prompt thiamine replacement can lead to significant clinical recovery, preventing irreversible callosal damage. This case underscores the importance of nutritional vigilance and neuroimaging in alcohol-related neurological syndromes

MRI BRAIN

T2 axial



FLAIR CORONAL