



Alexia without Agraphia Following an Ischaemic Stroke in a 70 Year Old Nigerian African

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ABSTRACT

Pure alexia is an acquired reading disorder, in previously literate subjects who show correct writing (spontaneously or on dictation) and normal oral spelling in the absence of apraxia, dementia or visual agnosia. It is often due to a vascular cause but cases following tumors, multiples sclerosis and acute encephalopathies have been reported. We report the first case of a radiologically confirmed pure alexia syndrome in Nigeria in a 70 year old right handed man following an ischaemic stroke.

Key Words: alexia, ischaemic stroke, Nigerian.

INTRODUCTION

Alexia without agraphia also called pure alexia is an acquired language disorder; a disconnection syndrome that was first described by Dejerine, a French Neurologist in 1892.¹ It is an acquired inability to read, in previously literate subjects who show correct writing (spontaneously or on dictation) and normal oral spelling in the absence of aphasia, dementia or visual agnosia.² The lesion is located in the left occipital lobe involving the splenium of the corpus callosum and the angular gyrus.³ It classically follows a vascular lesion but cases have been reported of pure alexia following

brain tumors,⁴ acute encephalopathies⁵ and multiple sclerosis.⁶

CASE REPORT

The patient is a 70 year old right handed man known with systemic arterial hypertension who had not been adherent to medications. He presented on account of blurring of vision and inability to read noticed previous day.

No accompanied weakness in any part of the body. Eight weeks earlier, he had a right-sided hemiparesis with Motor Research Council power of 4⁺/5 in both upper and lower limbs that

resolved completely within 48 hours of intensive physiotherapy and commencement of secondary stroke prevention strategy.

On examination, he was conscious with fluent and meaningful speech with preserved comprehension and repetition. Writing was preserved both spontaneously and following dictation. He was not able to read words, figures and letters. He had right homonymous hemianopia. Other aspects of ophthalmic and neurological examinations were normal.

The blood pressure was 190/90mmHg, and random blood sugar was 5.8mmol/L. Other general and systemic examination findings were essentially normal.

There was low HDL-cholesterol (0.8mmol/L) and LDLc/ HDLc ratio was 3.5. The results of ECG, Echocardiography, Carotid Doppler ultrasound and haemoglobin A1c were essentially normal.

A diagnosis of Disconnection syndrome (alexia without agraphia) was made. Brain MRI revealed an area of gliosis with encephalomalacic changes (chronic infarct) in the left occipital lobe. Figure 1.

The patient has been referred to the speech therapist for rehabilitation and training while his blood pressure and dyslipidaemia are being treated.

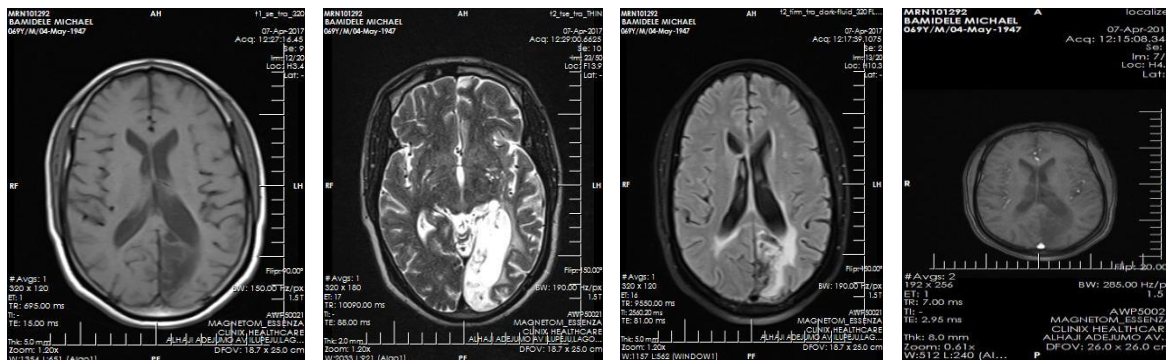


Figure1.

DISCUSSION

This is the first reported case of alexia without agraphia secondary to stroke in Nigeria, to the best of our knowledge. Our patient shows the typical presentation of a lesion involving the left occipital lobe similar to the cases reported by Sharman et al³ in a 55 year old right handed man, and Cinimo et al⁷ in a 71-year-old right handed man. Robinson et al⁸ reported a 65 year old right handed man who developed pure alexia 12 months after a stroke that involved the right occipital lobe. Our patient must have had a repeat stroke involving the posterior circulation while the previous stroke involved the anterior circulation (left middle cerebral artery territory). However, the brain MRI did not reveal any evidence of previous stroke in the left middle cerebral artery territory. Likewise, electrocardiography and echocardiography did not show arrhythmia or any

evidence of structural cardiac defect that would have suggested a cardioembolic stroke if we are to consider the multi-territorial involvement.⁹

CONCLUSION

Pure alexia is a rare stroke presentation. Therefore, ophthalmologists and family physicians who may be the first points of contact should be aware of this condition and refer to the neurologist to forestall a more disabling stroke.

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