Case Report

Transitory alexia without agraphia: A disconnection syndrome due to neurocysticercosis

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We describe a 65-year-old male who presented with acute onset inability to read, without any difficulty in writing. A clinical diagnosis of alexia without agraphia was made and the patient was subjected to routine investigations including contrast MRI. MRI showed a ring-enhancing lesion in left occipital area, suggestive of neurocysticercosis supported by quantitative enzyme-linked immunosorbant assay from purified cell fraction of taenia solium cysticerci (PCF--ELISA). Patient was treated with albendazole and prednisolone for one week. The clinical manifestation as well as the radiological finding resolved after treatment.

Key Words: Neurocysticercosis, ataxia, agraphia

Introduction

Alexia is defined as loss of reading ability in a previously literate person due to an acquired brain lesion. Alexia without agraphia (pure alexia) results from a lesion in the left occipital lobe and adjacent splenium (posterior corpus callosum) that disconnects visual input from language areas, first described by Dejerine. The most common pathological process is usually an infarction in the territory of the posterior cerebral artery (PCA) due to occlusion by thrombi or emboli, although PCA compression during tentorial herniation and space occupying lesion may also cause this syndrome. We are reporting an unusual but interesting transitory cause of alexia without agraphia.

Case Report

A 65-year-old male, post-graduate, schoolteacher presented with acute onset difficulty in reading. He was able to name individual letters or numbers but could not read words or phrases. He retained the ability to speak, repeat speech, write and spell aloud. He was able to write a paragraph but was not able to read it back. There was no history suggestive of coronary artery disease, cerebro-vascular disease, trauma, blood transfusion, joint pain, rashes, photosensitivity, and seizure-like activity. The patient did not give any history of loss of consciousness, fever, headache, vomiting, dysphagia, dysarthria, gait ataxia or any weakness. There was no history suggestive of diabetes and hypertension.

The general physical examination and higher mental functions except for alexia were normal. At ophthalmic evaluation, right hemianopia was recorded. Visual acuity, including pupils, intraocular pressure and ocular fundi were normal. Patient had difficulty in reading and in naming colors but was able to match colors and shades. He was able to understand the nature and use of objects presented visually and recognize the faces. Both upper and lower limb bulk, power, reflex and plantar response were normal. Sensory and cerebellar examination were also normal.

Complete blood count, blood sugar, electrolyte, coagulation profile, collagen vascular profile, lipid profile, serum lactate and ELISA for HIV were normal. X-ray chest, carotid color doppler, ECG, echocardiogram were normal. EEG, CSF routine microscopy and PCR for HSV, and AFB were negative. Quantitative ELISA for immunodiagnosis of neurocysticercosis using cerebrospinal fluid showed a strongly positive result. CSF routine and microscopy revealed normal findings with normal lactate dehydrogenase (LDH) and R microglobulin. CT Scan (plain) was normal. Contrast magnetic resonance imaging (MRI) of brain revealed a ring-enhancing lesion 15 x 6 x 11 mm with perifocal edema in left occipital area on 2nd day of presentation (Figure 1).

The patient was offered albendazole 15 mg/Kg body weight for 1 week along with steroid 1-mg/Kg body weight for 1 week. There was a marked improvement and the patient was able to read. Follow-up MRI studies revealed complete resolution of the lesion after 8 weeks.

Discussion

In the classic syndrome of pure alexia without agraphia, patients can write but cannot read their own writing; speech, auditory comprehension, and repetition are normal. Naming deficit, especially for colors, may be present. Associated defi-
Neurocysticercosis was based on the MRI finding, positive PCF-ELISA in CSF and the clinical manifestation as well as the resolution of radiological findings after treatment.

We concluded that our case report is an unusual non-epileptic manifestation of a very common endemic problem, neurocysticercosis. Reversible pure alexia has not been reported with neurocysticercosis. Recognizing this reversible cause will avoid unnecessary treatment and investigation of the patient.

References

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