Recurrence Transcortical Motor Aphasia—Another CNS Infectious Syndrome Associated with Herpes Virus Infection

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Abstract

Herpes simplex encephalitis is an acute/subacute illness that causes both general and focal signs of cerebral dysfunction with fever, headache, and confusion as cardinal features. Recurrent herpes simplex meningitis, also known as Mollaret’s meningitis, is another manifestation of central nervous system herpetic infection with recurrent episodes of fever, headache, and nuchal rigidity associated with cerebrospinal fluid (CSF) evidence of active herpes simplex infection. Bell’s palsy is yet another manifestation of a herpes virus infection in at least some reported cases documented by CSF analysis. We report a case of a 70-year-old male who presented with acute transcortical motor aphasia initiating a stroke work-up that was negative. Physical examination revealed genital vesicles, and the CSF was consistent with active herpes simplex infection.

Introduction

Herpes simplex encephalitis is an acute/subacute illness that causes both general and focal signs of cerebral dysfunction with fever, headache, and confusion as cardinal features. Recurrent herpes simplex meningitis, also known as Mollaret’s meningitis, is another manifestation of central nervous system herpetic infection with recurrent episodes of fever, headache, and nuchal rigidity associated with cerebrospinal fluid (CSF) evidence of active herpes simplex infection. Bell’s palsy is yet another manifestation of a herpes virus infection in at least some reported cases documented by CSF analysis. We report a case of a 70-year-old male who presented with acute transcortical motor aphasia initiating a stroke work-up that was negative. Physical examination revealed genital vesicles, and the CSF was consistent with active herpes simplex infection.

Case Report

A 70-year-old bilingual (English/Spanish) man woke up with difficulty speaking in both languages. Patient had a normal brain CT without contrast at a nearby emergency room. The symptoms had persisted for a day when he presented to us, and a stroke alert was called. He was afebrile, and his blood pressure was 148/90 mmHg. Neurological examination revealed motor aphasia with preserved comprehension, reading, and repetition. He had no other focal neurological deficits. Routine labs were normal. Brain MRI without contrast showed periventricular white matter disease with no evidence of infarction (Figure 1). A repeat thorough examination revealed genital vesicles consistent with Herpes genitalis. CSF analysis showed WBC count of 175/ul with 75% lymphocytes, RBC count of 70/ul, glucose 50 mg/dl, and protein 70 mg/dl. Herpes polymerase chain reaction (PCR) was negative as were gram stain, and bacterial and fungal cultures. Thirty-minute electroencephalogram revealed a 10–12 Hz background with no periodic lateralized epileptiform discharges. Intravenous acyclovir was started with improvement in symptoms within 3 days. He completed the course for 14 days with complete resolution of symptoms. He presented with similar complaints 2 months later to a different facility initiating a stroke work-up before being transferred to our institution. Repeat CSF analysis revealed WBC count of 20/ul and positive Herpes simplex type-2 by PCR consistent with active infection.
Discussion

The classic symptoms of herpes encephalitis are fever (90%), headache (81%), and psychiatric symptoms (71%).[1] Focal neurological deficits are uncommon, more so language abnormalities.[2] Radiographically, the most common areas of involvement are the medial temporal lobes, which are best observed with MRI. Sensitivity of MRI is reported best 48 h after onset of symptoms, and approaches 85% although it can be false negative in very early stages on infection.[3] We suspect that since MRI was done early in the course of the infection, it might have been normal. Ku et al. reported a bilingual (Mandarin/English) pediatric patient with herpes simplex encephalitis, who developed global aphasia along with other clinical features of encephalitis but recovered his mother tongue before recovering his second language.[4] Our bilingual (English/Spanish) patient presented with transcortical motor aphasia affecting both languages with no other classic features of encephalitis or meningitis. He regained bilingual ability nearly at the same time, 3 days after starting treatment. The first episode could have been non-herpetic aseptic meningitis, since PCR was negative, but the fact that patient presented with same symptom as the first episode and PCR was positive for herpes during the second episode made us suspicious that even the first episode could have been caused by herpes.

Conclusion

The protean manifestations of herpes simplex central nervous infection can be a challenging clinical problem. In patients who present with acute aphasia and perhaps even other acute focal neurological deficits and in whom MRI does not show an infarct, a thorough examination and spinal tap might be necessary to rule out herpes simplex infection.

References