



A case of Neurosyphilis required extended treatment of Penicillin

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Introduction:

Neurosyphilis is any involvement of the central nervous system (CNS) by *Treponema pallidum*. The CNS may be involved at any stage of infection.

Case presentation:

A 54-year-old previously healthy African American male was hospitalized due to a 2-year history of progressive cognitive decline. One year after symptoms he developed, over a 4-month period, gait disturbance resulting in frequent falls, speech impairment, worsening memory loss, psychosis and inability to perform activities of daily living.

A diagnosis of Neurosyphilis was established, intravenous penicillin G 24 million units daily for 14 days was given. Two months later the patient was transferred to the hospital for altered behavior and mental status changes from cognitive baseline. Repeat CSF RPR titer (1:4) was the same as at initial diagnosis, despite appropriate treatment. Brain MRI showed progressive volume loss in both temporal lobes, thalamus and cerebellum consistent with an evolving encephalitis. Treatment with intravenous penicillin G 24 million units was repeated. The patient improved clinically.

Conclusion:

The incidence of syphilis is increasing although no resistance to penicillin has been reported. Hence this patient has been diagnosed with neurosyphilis and was unresponsive to usual dose and duration of penicillin, we recommended a repeat CSF examination every 6 months, and to have a lower threshold for CSF examination for possible relapse or resistance.

