

## IMAGES IN CLINICAL MEDICINE

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## Tabes Dorsalis and Argyll Robertson Pupils



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A video showing  
signs and symptoms  
of tabes dorsalis  
is available at  
[NEJM.org](http://NEJM.org)

A 47-YEAR-OLD MAN WITH A HISTORY OF HUMAN IMMUNODEFICIENCY virus (HIV) infection presented with an 8-month history of severe paroxysmal shooting pains in his legs, progressive difficulty in walking, tinnitus, and urinary incontinence. He had a fully suppressed HIV viral load and a CD4+ count of 400 cells per cubic millimeter while receiving antiretroviral therapy. The physical examination showed Argyll Robertson pupils, which are nonreactive to bright light but briskly constrict when focusing on a near object (see video). Magnetic resonance imaging showed high signal changes in the dorsal columns of the thoracic spine, and samples of blood and cerebrospinal fluid were positive for syphilis on Venereal Disease Research Laboratory (VDRL) testing and *Treponema pallidum* particle agglutination assay. The patient was treated with intravenous penicillin for 14 days, and gabapentin was started for the neuropathic leg pains. Tabes dorsalis is a form of neurosyphilis that is characterized by degeneration of the nerves in the dorsal columns of the spinal cord. Along with Argyll Robertson pupils, the condition is associated with ataxia and loss of proprioception. After treatment, the patient's symptoms and mobility slowly improved, although the shooting pains in his legs have continued despite pharmacotherapy. The serum VDRL level fell appropriately, and the result on VDRL testing of the cerebrospinal fluid was negative.

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