



# Teaching Video NeuroImages: A teenager with a rare movement disorder



Rajkumar Agarwal, MD  
Lalitha Sivaswamy, MD

Correspondence to  
Dr. Agarwal:  
ragarwal@dmc.org

Supplemental data at  
[www.neurology.org](http://www.neurology.org)

A 17-year-old patient with no medical or psychiatric illness presented with a 4-year history of painless twitching of the toes of his right foot (video on the *Neurology*<sup>®</sup> Web site at [www.neurology.org](http://www.neurology.org)). The movements subsided in deep sleep. Neurologic examination, EEG, and MRI brain/lumbosacral spine were normal. Electrophysiology showed axonal neuropathy of the right deep peroneal nerve.

“Painless legs moving toes,” like the phenomenologically similar “painful legs moving toes,” is hypothesized to be a centrally generated movement disorder.<sup>1</sup> Peripheral neuropathy may modulate afferent input to the spinal cord, which secondarily causes changes in the brainstem and subcortical centers, resulting in abnormal motor patterns.<sup>2</sup>

## AUTHOR CONTRIBUTIONS

Rajkumar Agarwal contributed to drafting and revising the manuscript. Lalitha Sivaswamy contributed to drafting and revising the manuscript.

## STUDY FUNDING

No targeted funding reported.

## DISCLOSURE

The authors report no disclosures relevant to the manuscript. Go to [Neurology.org](http://Neurology.org) for full disclosures.

## REFERENCES

1. Kwon SJ, Kim JM, Jeon BS. A case report of painless moving toes syndrome. *J Clin Neurol* 2008;4:33–35.
2. Alvarez MV, Driver-Dunckley EE, Caviness JN, Adler CH, Evidente VG. Case series of painful legs and moving toes: clinical and electrophysiologic observations. *Mov Disord* 2008;23:2062–2066.

# Neurology<sup>®</sup>

**Teaching Video *NeuroImages*: A teenager with a rare movement disorder**  
Rajkumar Agarwal and Lalitha Sivaswamy  
*Neurology* 2013;81:e4  
DOI 10.1212/WNL.0b013e318297ee94

**This information is current as of July 1, 2013**

<b>Updated Information &amp; Services</b>	including high resolution figures, can be found at: <a href="http://n.neurology.org/content/81/1/e4.full">http://n.neurology.org/content/81/1/e4.full</a>
<b>Supplementary Material</b>	Supplementary material can be found at: <a href="http://n.neurology.org/content/suppl/2013/06/29/81.1.e4.DC1">http://n.neurology.org/content/suppl/2013/06/29/81.1.e4.DC1</a>
<b>References</b>	This article cites 2 articles, 0 of which you can access for free at: <a href="http://n.neurology.org/content/81/1/e4.full#ref-list-1">http://n.neurology.org/content/81/1/e4.full#ref-list-1</a>
<b>Subspecialty Collections</b>	This article, along with others on similar topics, appears in the following collection(s): <b>All Clinical Neurology</b> <a href="http://n.neurology.org/cgi/collection/all_clinical_neurology">http://n.neurology.org/cgi/collection/all_clinical_neurology</a> <b>All clinical neurophysiology</b> <a href="http://n.neurology.org/cgi/collection/all_clinical_neurophysiology">http://n.neurology.org/cgi/collection/all_clinical_neurophysiology</a> <b>All Movement Disorders</b> <a href="http://n.neurology.org/cgi/collection/all_movement_disorders">http://n.neurology.org/cgi/collection/all_movement_disorders</a> <b>Peripheral neuropathy</b> <a href="http://n.neurology.org/cgi/collection/peripheral_neuropathy">http://n.neurology.org/cgi/collection/peripheral_neuropathy</a>
<b>Permissions &amp; Licensing</b>	Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at: <a href="http://www.neurology.org/about/about_the_journal#permissions">http://www.neurology.org/about/about_the_journal#permissions</a>
<b>Reprints</b>	Information about ordering reprints can be found online: <a href="http://n.neurology.org/subscribers/advertise">http://n.neurology.org/subscribers/advertise</a>

*Neurology*® is the official journal of the American Academy of Neurology. Published continuously since 1951, it is now a weekly with 48 issues per year. Copyright © 2013 American Academy of Neurology. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.

