

Teaching Video NeuroImages: A 20-year-old man with distal paresthesia

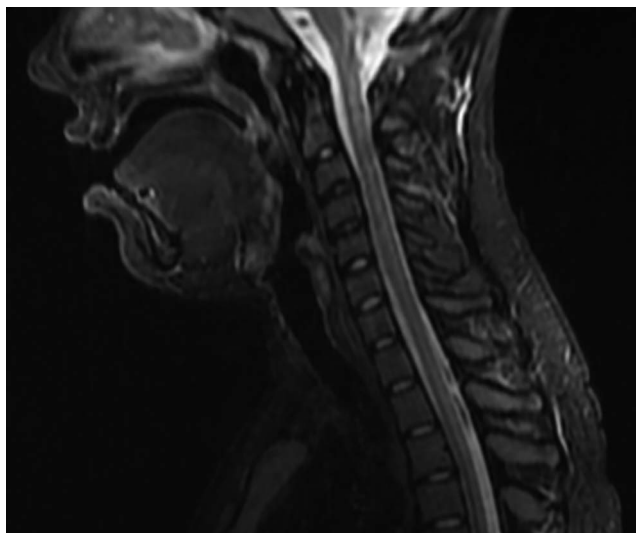
Amanda Stafford, MB, ChB, and Chinar Osman, MB, BS

Neurology® 2019;92:e170. doi:10.1212/WNL.0000000000006728

Correspondence

Dr. Stafford
a.stafford@doctors.org.uk

Figure MRI sagittal T2



MORE ONLINE

Video

Teaching slides

links.lww.com/WNL/A771

A 20-year-old man presented with a 3-week history of progressive distal paresthesia in his lower limbs. His gait became clumsy and he became unable to mobilize. The patient was vegetarian and after questioning admitted to regular recreational nitrous oxide use.

Examination revealed a clear dorsal column syndrome with pseudoathetosis of the upper limbs and reduced proprioception of upper and lower limbs with reduced vibration sensation to the xiphisternum. Knee jerk reflexes were brisk bilaterally with absent ankle jerk reflexes and extensor plantars (figure, video 1).

MRI showed high signal in the dorsal column throughout the spinal cord. Vitamin B₁₂ levels were low (84 ng/L). This presentation represents subacute combined degeneration of the cord secondary to nitrous oxide abuse by inactivating B₁₂ levels. The patient was treated with vitamin B₁₂ replacement and intensive neurorehabilitation. Nitrous oxide abuse should always be considered in a young patient with dorsal column syndrome.¹

Study funding

No targeted funding reported.

Disclosure

The authors report no disclosures relevant to the manuscript. Go to Neurology.org/N for full disclosures.

Reference

1. Vasconcelos OM, Poehm EH, McCarter RJ, Campbell WW, Quezado ZM. Potential outcome factors in subacute combined degeneration review of observational studies. *J Gen Intern Med* 2006;21:1063–1068.

From Wessex Neurological Centre, University Hospital Southampton NHS Foundation Trust, UK.

Neurology®

Teaching Video NeuroImages: A 20-year-old man with distal paresthesia

Amanda Stafford and Chinar Osman

Neurology 2019;92:e170

DOI 10.1212/WNL.0000000000006728

This information is current as of January 7, 2019

Updated Information & Services	including high resolution figures, can be found at: http://n.neurology.org/content/92/2/e170.full
References	This article cites 1 articles, 0 of which you can access for free at: http://n.neurology.org/content/92/2/e170.full#ref-list-1
Subspecialty Collections	This article, along with others on similar topics, appears in the following collection(s): All Medical/Systemic disease http://n.neurology.org/cgi/collection/all_medical_systemic_disease All Spinal Cord http://n.neurology.org/cgi/collection/all_spinal_cord Clinical neurology examination http://n.neurology.org/cgi/collection/clinical_neurology_examination Other toxicology http://n.neurology.org/cgi/collection/other_toxicology
Permissions & Licensing	Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at: http://www.neurology.org/about/about_the_journal#permissions
Reprints	Information about ordering reprints can be found online: http://n.neurology.org/subscribers/advertise

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 © 2019 American Academy of Neurology. All rights reserved. Print ISSN: 0028-3878. Online ISSN: 1526-632X.

