

# Teaching NeuroImages: MRI appearances of Lhermitte-Duclos disease

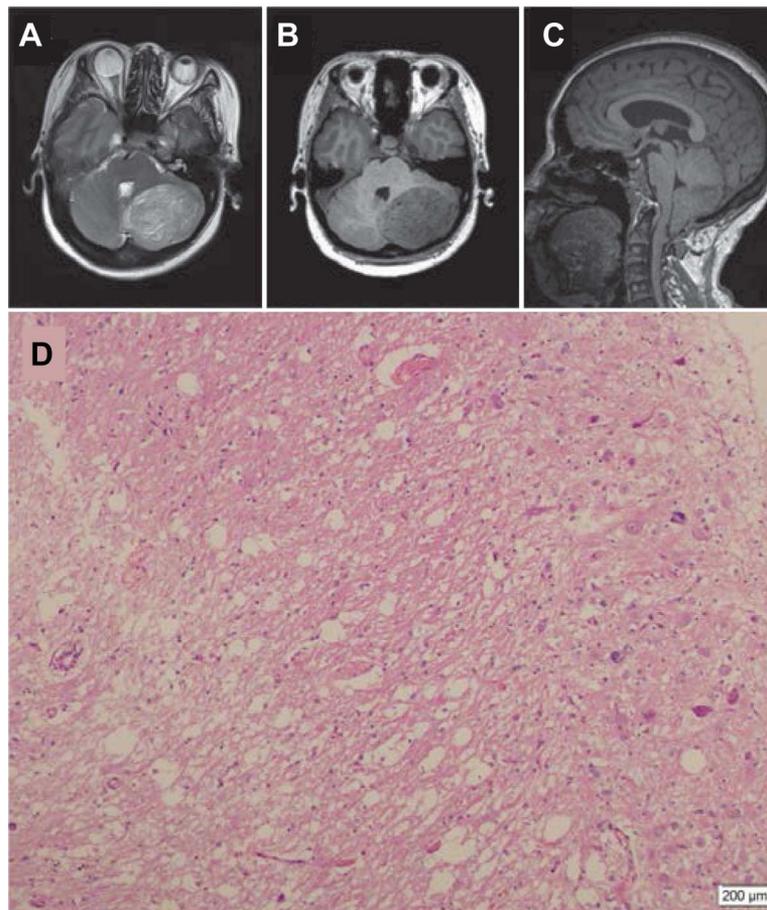
Guangquan Wei, MD,  
PhD  
Shujuan Liu, MD, PhD  
Yuanming Wu, MD,  
PhD  
Xiaowei Kang, MD  
Tianyun Li, MD

A 48-year-old woman was admitted with a 3-year history of intermittent dizziness and unstable gait. Cranial MRI demonstrated a laminated lesion of T2 hyperintensity and T1 hypointensity involving the left cerebellar hemisphere, which appeared enlarged (figure, A–C). Secondary hydrocephalus and Chiari I malformation were observed. Because

the striated appearance on MRI was characteristic of Lhermitte-Duclos disease,<sup>1</sup> presurgical diagnosis was made. Total resection of this lesion was performed, and histopathologic evaluation confirmed the diagnosis (figure, D). Follow-up neuroradiologic studies revealed no recurrence. However, recent ultrasonography showed multiple nodules in the patient's right breast, which was

Correspondence to  
Dr. Liu:  
hanliu@fmmu.edu.cn

**Figure** MRI appearances and histopathologic examination



Axial T2- and T1-weighted MRIs (A, B) show the typical striated pattern with alternating bands characterizing Lhermitte-Duclos disease. Mild hydrocephalus and the inferiorly displaced cerebellar tonsil were noted on the sagittal T1-weighted image (C). Histopathologic study (D) (hematoxylin & eosin stain; scale bar = 200 μm) confirmed the MRI diagnosis.

From the Departments of Radiology and Molecular Imaging (G.W., X.K., T.L.) and Gynecology (S.L.), Xijing Hospital, and Center for Gene Typing (Y.W.), Fourth Military Medical University, Xi'an, China.

Go to [Neurology.org](http://Neurology.org) for full disclosures. Funding information and disclosures deemed relevant by the authors, if any, are provided at the end of the article.

predictive of a confident clinical diagnosis of Cowden disease.<sup>2</sup>

#### **AUTHOR CONTRIBUTIONS**

Dr. Wei: drafting and revising the manuscript, study concept or design, study supervision. Dr. Liu: drafting and revising the manuscript, analysis or interpretation of data, study supervision. Dr. Wu, Dr. Kang, Dr. Li: study concept or design, acquisition of data.

#### **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. Kulkantrakorn K, Awwad EE, Levy B, et al. MRI in Lhermitte-Duclos disease. *Neurology* 1997;48:725–731.
2. Robinson S, Cohen AR. Cowden disease and Lhermitte-Duclos disease: characterization of a new phakomatosis. *Neurosurgery* 2000;46:371–383.

# Neurology®

## Teaching *NeuroImages*: MRI appearances of Lhermitte-Duclos disease

Guangquan Wei, Shujuan Liu, Yuanming Wu, et al.

*Neurology* 2013;80:e67-e68

DOI 10.1212/WNL.0b013e3182815454

**This information is current as of February 4, 2013**

<b>Updated Information &amp; Services</b>	including high resolution figures, can be found at: <a href="http://n.neurology.org/content/80/6/e67.full">http://n.neurology.org/content/80/6/e67.full</a>
<b>References</b>	This article cites 2 articles, 1 of which you can access for free at: <a href="http://n.neurology.org/content/80/6/e67.full#ref-list-1">http://n.neurology.org/content/80/6/e67.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 Pain</b> <a href="http://n.neurology.org/cgi/collection/all_pain">http://n.neurology.org/cgi/collection/all_pain</a> <b>Gait disorders/ataxia</b> <a href="http://n.neurology.org/cgi/collection/gait_disorders_ataxia">http://n.neurology.org/cgi/collection/gait_disorders_ataxia</a> <b>Hydrocephalus</b> <a href="http://n.neurology.org/cgi/collection/hydrocephalus">http://n.neurology.org/cgi/collection/hydrocephalus</a> <b>MRI</b> <a href="http://n.neurology.org/cgi/collection/mri">http://n.neurology.org/cgi/collection/mri</a> <b>Primary brain tumor</b> <a href="http://n.neurology.org/cgi/collection/primary_brain_tumor">http://n.neurology.org/cgi/collection/primary_brain_tumor</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.

