Parkinsonism Presented with Watershed Pattern Lesions

Yi Dong MD, PhD1; Xin Cheng MD, PhD1; Qiang Dong MD, PhD1

Affiliations: 1. Department of Neurology, Huashan Hospital, Fudan University

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Corresponding Author:
Dong Qiang
Email: dong_qiang@fudan.edu.cn

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A 47-year-old man presented to clinic with progressively right-hand bradykinesia and shuffling gait for 8 months. He was diagnosed with Parkinsonism. Brain MR demonstrated DWI-hyperintense signal involving bilateral corona radiate (Figure 1) and T2-weighted MR showed white matter changes (Figure 2). Colony-stimulating factor 1 receptor (CSF1R) gene sequencing revealed the pathogenic variants c.2381T>C(p.Ile794Thr), confirming the diagnosis of hereditary diffuse leukoencephalopathy with spheroids (HDLS)\(^1\). He was treated with levodopa and selegiline but with minimal response\(^2\).

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**Teaching Slides:** [http://links.lww.com/WNL/B370](http://links.lww.com/WNL/B370)

**Reference**


**Figure Legends**

**Figure 1.** Brain MR demonstrated watershed DWI-hyperintense signal.

Brain MR demonstrated DWI-hyperintense signal (white arrowhead) involving bilateral corona radiate, which fit watershed infarction pattern.
Figure 2: Extensive white matter hyperintensity lesion on contrast Brain MR

(A& B) several lacunas with extensive white matter hyperintensity lesions involving bilateral lateral periventricular regions without enhancement; (C&D) DWI positive lesions without hypo-intensity appearance on ADC; (E) hypo-intensity lesions on rostrum of corpus callosum (white arrow) and predominant splenial atrophy (black arrowheads)
## Appendix: Authors

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<tr>
<th>Name</th>
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<th>Contribution</th>
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<tbody>
<tr>
<td>Yi Dong, MD, PhD</td>
<td>Huashan Hospital, FudanUniversity</td>
<td>Collection and interpretation of the data, manuscript drafting</td>
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<td>Xin Cheng, MD, PhD</td>
<td>Huashan Hospital, FudanUniversity</td>
<td>manuscript revision</td>
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<tr>
<td>Qiang Dong, MD, PhD</td>
<td>Huashan Hospital, FudanUniversity</td>
<td>supervision, manuscript revision</td>
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