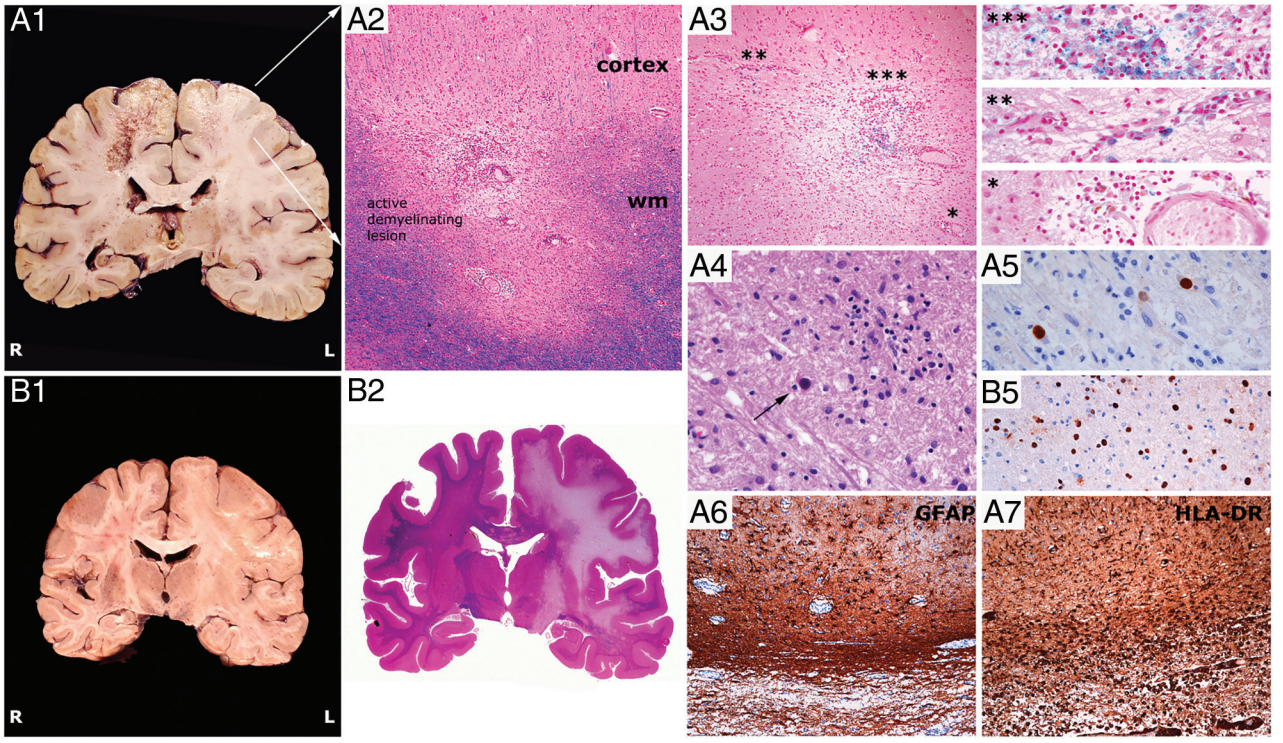


**ON-LINE FIGURE.** Panels *A1* to *A5* represent patient 1 (with dark SWI-rim), and panels *B1, B2*, and *B5* represent patient 2 (without dark SWI-rim). *A1:* Hemispheric section reveals large bifrontal and partly cavitated lesions (right frontal). *B1:* Hemispheric brain section reveals an extensive white matter lesion on the left side with increased volume, blurring of the cortico-subcortical lining, and tissue softening. This is better identified in the Klüver-Barrera stain in *B2*, where the extensive loss of myelin is readily depicted on the left, while there are multiple additional demyelinating foci in the corpus callosum, the cortico-subcortical boundary, and in the thalamus. *A2:* Detail of an active cortico-subcortical demyelinating lesion with relatively sharp borders. In the center of the lesion, abundant deposits of iron can be identified in the Prussian blue stain: coarser blue pigment in macrophages (***); diffuse cytoplasmic stain of pericapillary cells/macrophages in the deep cortical layers (**); and a combination of yellowish and blue perivascular pigment (*) in areas distant from the active lesion. *A4:* Enlarged oligodendroglial nuclei with amphophilic material that corresponded to PML cells. The infection by the JC virus is confirmed by immunohistochemistry (*A5, B5*), which shows more abundant, infected oligodendrocytes in the patient with short-term survival (*B5*). *A6:* Immunohistochemistry for glial acidic protein, GFAP, reveals prominent reactive and fibrillary gliosis at the cortico-subcortical boundary, as well as marked microglial activation in the HLA-DR immunostaining (*A7*).

**On-line Table: Demographic and clinical data of the participants, including information about formation of SWI-hypointense rim**

| Patient No. | Age (yr) | Sex | Ground Disease | Neurological Symptoms | Current CD4 Count (cells/mL) | Survival Time (mo) | SWI Rim | DWI Rim |
|---|---|---|---|---|---|---|---|---|
| 1 | 33 | Male | HIV | Hemiplegia, grand mal seizure | 15 | 115 | + | − |
| 2[a] | 47 | Female | HIV | Hemiparesis, somnolency, seizure | 184 | 6 | + | − |
| 3 | 54 | Male | HIV | Expressive aphasia | 157 | 110 | + | − |
| 4 | 54 | Male | HIV | Homonymous hemianopsia | 241 | 109 | + | − |
| 5 | 69 | Male | HIV | Psychosis, agitation | 65 | 20 | + | − |
| 6 | 48 | Male | HIV | Spastic hemiparesis | 47 | 23 | + | − |
| 7 | 41 | Male | HIV | Seizure | 51 | 1.5 | − | − |
| 8 | 41 | Male | HIV | Hemiplegia | 101 | 1 | − | + |
| 9 | 42 | Male | HIV | Hemiplegia, dysarthria | 199 | 37 | + | − |
| 10 | 34 | Female | HIV | Progressive dysarthria | 51 | 198 | + | − |
| 11 | 26 | Female | MS | Hemiplegia | N/A | 88 | + | − |
| 12 | 40 | Male | MS | Progressive dysarthria | N/A | 68 | + | + |
| 13 | 41 | Male | MS | Hemiplegia | N/A | 103 | + | − |
| 14 | 66 | Male | AML | Coma | N/A | 2 | − | − |
| 15 | 75 | Male | MM | Hemiplegia | N/A | 29 | + | − |
| 16[a] | 63 | Male | NHL | Progressive dysarthria | N/A | 3 | − | − |
| 17 | 54 | Female | Lymphoma Rituximab | Cognitive decline | N/A | 5 | + | − |
| 18 | 74 | Female | Lymphoma recurrence | Vertigo | N/A | 2 | − | − |

**Note:**—NHL indicates non-Hodgkin lymphoma; AML, acute myeloid leukemia, MM, multiple myeloma; +, present; −, absent; NA, not available.
[a] Patients with postmortem histologic analysis.