

Supplemental Digital Content 1. The composite of 10 photomicrographs shows the pathologic findings in temporal variant frontotemporal dementia: Patient 1 (Panels D-G, I, and J) and Patient 2 (Panels A-C and H). Panel A: Hippocampal sclerosis with depletion of neurons in the CA1 hippocampal subregion and subiculum, as demonstrated with a hematoxylin and eosin preparation. The CA4 hippocampal subregion is also shown. Panel B: Tau immunohistochemistry with the monoclonal AT8 antibody, showing numerous, mostly globular oligodendroglial inclusions (GOIs). Panel C: Clustering of GOIs at the margin between gray and white matter (white matter is marked by the \*\*) in the prefrontal cortex (marked by the ##). Panel D: Tau immunohistochemistry with an antibody to 4-repeat tau, showing abundant oligodendroglial inclusions in the frontal white matter. Panel E: Neuronal tau-immunoreactive inclusions and neuropil threads in the substantia nigra. Panel F: Tau-positive threads and oligodendroglial inclusions in the pencil fibers of the striatum. Panels G-H: Tau-positive astrocytic inclusions with a granular and globular staining pattern. Panels I-J: Tau-positive oligodendroglial inclusions (Panel I), including GOIs in the anterior commissure (Panel J).

The scale bar represents 200  $\mu m$  in Panel A; 100  $\mu m$  in Panel C; 50  $\mu m$  in Panels B, D, E, and F; and 15  $\mu m$  in Panels G-J.