Supplementary Table 1. The stage of our case comparing with reported staged of ALSP and N-HD by Oyanagi et al.'s paper [13]

Stage	ALSP	Nasu-Hakola disease	Our case
I	- Patchy loss of myelinated fibers in the cerebral WM - No remarkable cerebral atrophy	- Not evaluable	
II	- Patchy loss of large areas of myelinated fibers in the cerebral WM - Slight cerebral atrophy - Slight dilation of the lateral and third ventricles.	- Slight atrophy and irregular patches of myelinated fiber loss in the frontal, temporal and parietal WM, centrum semiovale and corpus callosum - Moderate dilatation of the lateral ventricles	
III	- Extensive degeneration of the cerebral WM, including the corpus callosum, internal capsule and some parts of U-fibers - Atrophy of the thalamus - Moderate dilatation of the lateral and third ventricles	- Moderate atrophy and loss of myelinated fibers of the frontal, temporal, parietal and occipital WM, centrum semiovale and corpus callosum - Atrophic temporal cortex and hippocampus - Severe deterioration of the thalamus, hippocampus and parahippocampal gyrus with loss of neurons	
IV	- Cerebral WM devastation - Marked atrophy in the frontal WM, centrum semiovale, temporal WM, corpus callosum and thalamus - Severe dilatation of the lateral ventricles - Severe degeneration of the cerebellar WM and myelinated fibers in the pontine base - Thinning of the cerebral cortex. - Relatively good preservation of the hippocampus	- Marked atrophy and loss of axons in the frontal and temporal WM, centrum semiovale and corpus callosum - Severe dilatation of the lateral ventricle - Deterioration of the thalamus, hippocampus and parahippocampal gyrus - Degeneration of the cerebellar WM, especially posteriorly - Relative preservation of the internal capsule, optic tract, pontine base and superior cerebellar peduncles	- Extensive atrophy & loss of the cerebral WM including the corpus callosum and thalamus, but relatively preserved WM of occipital lobe and most U-fibers. - Severe dilatation of lateral and third ventricle - Degeneration of basis pontis and corticospinal tract of spinal cord. - Mild involvement of cerebellum with mild thinning of cerebral cortex Compatible with ALSP, grade IV

ALSP, adult onset leukoencephalopathy with axonal spheroids and pigmented glia; WM, white matter.