

Supplementary Table 1. Differences in DTI values in ROIs that were significantly different between AHC patient and controls

Tract ROI	Difference (AHC–control mean)			
	FA ($\times 10^{-2}$)	MD ($\times 10^{-5}$ mm ² /s)	AD ($\times 10^{-5}$ mm ² /s)	RD ($\times 10^{-5}$ mm ² /s)
Anterior limb of internal capsule (right)	-1.48	5.84 [†]	7.61	4.96
Anterior limb of internal capsule (left)	0.95	4.38*	9.43 [†]	1.86
Retrolenticular part of internal capsule (left)	0.23	8.52 [†]	15.89 [†]	4.83
Anterior corona radiata (left)	2.28	3.94	9.89*	0.96
External capsule (left)	3.66	3.04	10.11 [†]	-0.49
Cingulum (cingulate gyrus) (right)	-0.21	8.18*	13.88*	5.33
Cingulum (cingulate gyrus) (left)	-3.79	6.43*	4.70	7.29*
Fornix (cres) / Stria terminalis (left)	2.64	5.43	14.96 [†]	0.66
Superior longitudinal fasciculus (left)	0.62	4.68*	8.66*	2.68
Superior fronto-occipital fasciculus (left)	3.76	4.29	12.61*	0.13

The DTI dataset of the patient was obtained using single-shot echo-planar imaging (repetition time = 12,000 ms, echo time = 88.9 ms, field of view = 240 × 240 mm², matrix = 128 × 128, thickness = 3.0 mm, scan time = 6 min 40 s, b-value 1,000 s/mm², 32 noncollinear directions) and compared to our database of 25 normal controls with a similar mean age (29.1 ± 7.1 years). *exceeds ± 1.96 standard deviations from the control group ($p < 0.05$ equivalent), [†]exceeds ± 2.575 standard deviations from the control group ($p < 0.01$ equivalent). DTI: diffusion tensor imaging, AHC: alternating hemiplegia of childhood, ROI: region of interest, FA: fractional anisotropy, MD: mean diffusivity, AD: axial diffusivity, RD: radial diffusivity.