

**Supplementary Table 1.** Evaluated genes in the next-generation sequencing panel for cerebellar ataxia in this case

Gene	Associated disorder
ABCD1	X-linked adrenoleukodystrophy
APTX	Ataxia-oculomotor apraxia 1
ATL1	Spastic paraplegia 3A
ATM	Ataxia telangiectasia
BEAN1	Spinocerebellar ataxia 31
CACNA1A	Spinocerebellar ataxia 6, Episodic ataxia type 2
CACNB4	Episodic ataxia type 5
CP	Aceruloplasminemia
CYP27A1	Cerebrotendinous xanthomatosis
FMR1	Fragile X-Associated Tremor/Ataxia Syndrome
FXN	Friedreich ataxia
GFAP	Alexander disease
KCNA1	Episodic ataxia type 1
MTTP	Abetalipoproteinemia
PNKP	Ataxia-oculomotor apraxia 4
POLG	POLG-related disorders
SACS	Autosomal recessive spastic ataxia of Charlevoix-Saguenay
SETX	Ataxia-oculomotor apraxia 2
SLC1A3	Episodic ataxia type 6
SPAST	Spastic paraplegia 4
SPG11	Spastic paraplegia 11
SPG7	Spastic paraplegia 7
SYNE1	Autosomal recessive cerebellar ataxia type 1
TK2	Spinocerebellar ataxia 31
TTPA	Ataxia with isolated vitamin E deficiency
ZFYVE26	Spastic paraplegia 15

Target capture was conducted using the SureSelect XT Reagent Kit (Agilent Technologies, Santa Clara, CA, USA), and sequencing was conducted using the NextSeq 550 instrument (Illumina, San Diego, CA, USA) with a depth of coverage > 100X. The interpretation of sequence variants followed the 2015 American College of Medical Genetics and Genomics Standards and Guidelines.