

Supplementary material

Supplementary figure 1.

Ictal EEG recording during focal seizures with impaired awareness (staring and eye blinking followed by clonic seizures of the left upper limb) shows fast focal, rhythmic activities originating from the right central regions and eventually spreading to the right hemisphere.



Supplementary table 1.

Summary of clinical and radiographic features of the presented patient as well as previously reported cases of *SZT2*-related epilepsy.

Supplementary Table 1. Summary of clinical and radiographic features of this patient and previously reported cases of *STZ2*-related epilepsy.

Individuals (Authors)	Epilepsy				Intellectual disability	Brain MRI	
	Age at onset	Type of seizures	EEG findings	Response to treatment		Deformity of CC	Persistent CSP
4 years, female (Present patient)	4 days after birth	focal to bilateral seizures	suppression burst, multifocal spikes	carbamazepine	severe	thin	+
10 years, female (Basel-Vanagaite, et al. 2013)	4 years	focal to bilateral seizures	focal spikes with secondary generalization	intractable	severe	thick	+
9 years, male (Basel-Vanagaite, et al. 2013)	2 months	focal to bilateral seizures, atypical absence	multifocal spikes	intractable	severe	thick	+
3 years, male (Venkatesan, et al. 2016)	2 months	focal seizures with impaired awareness	multifocal spikes	divalproex, lamotrigine	severe	—	—
4 years, female (Tsuchida, et al. 2017)	2 months	focal to bilateral seizures	slow background activity with focal spikes	intractable	severe	thick	—
2 years, male (Tsuchida, et al. 2017)	3 months	focal seizures with impaired awareness	various patterns of epileptiform activity	intractable	severe	thin	+
5 years, female (Tsuchida, et al. 2017)	8 months	tonic spasms	focal spikes	clonazepam	severe	thin	+
8 years, female (Pizzino, et al. 2018)	20 months	focal to bilateral seizures	multifocal spikes	intractable	severe	thick	+
4 years, female (Nakamura, et al. 2018)	2 years	focal to bilateral seizures	focal spikes	valproate	moderate	thick	—
6 years, male (Kariminejad, et al. 2018)	3 years	tonic-clonic seizures	normal	valproate, phenobarbital	severe	—	—
15 years, male (Imazumi, et al. 2018)	10 years	no data	multifocal spikes	intractable	severe	—	—

CC: corpus callosum; CSP: cavum septum pellucidum; EEG: electroencephalogram; MRI: magnetic resonance imaging