

Supp. Table 1. Postmortem intervals of non-epileptic controls included in this study.

<b>Control</b>	<b>Post-mortem interval (hours)</b>
C1	2 h
C2	12 h
C3	2 h
C4	4 h
C5	9 h
C6	6 h
C7	2 h
C8	5 h
C9	5 h
C10	12 h

Supp. Table 2. Anticonvulsant drugs taken by the patients included in this study. These treatments were taken at the time of surgery.

<b>Patient</b>	<b>Anticonvulsants</b>
N1	Lacosamide, valproic acid, eslicarbazepine acetate, perampanel
N2	Lamotrigine, eslicarbazepine acetate,, clonazepanm, valproic acid
N3	Oxcarbazepine, lamotrigine, perampanel
N4	Zonisamide, lacosamide
N5	Brivaracetam, eslicarbazepine acetate, lacosamide
N6	Lacosamide, Topamate
N7	Zonisamide, brivaracetam, perampanel, lacosamide
N8	Eslicarbazepine acetate, perampanel, levetiracetam
N9	Perampanel, levetiracetam
N10	Lamotrigine, perampanel,
N11	Levetiracetam, lamotrigine, pregabalin
N12	Lamotrigine, perampanel, carbamazepine
N13	Valproic acid, lamotrigine, levetiracetam, carbamazepine
N14	Levetiracetam, perampanel
N15	Zonisamide, lamotrigine, perampanel
N16	Oxcarbazepine, perampanel
N17	Carbamazepine, levetiracetam, perampanel
N18	Pregabalin, phenobarbital, lamotrigine, perampanel
N19	Carbamazepine, levetiracetam, perampanel, phenobarbital
N20	Lamotrigine, clobazam, levetiracetam , lacosamide, clonazepam, topiramate, phenytoin
N21	Topiramate, eslicarbazepine acetate, levetiracetam, perampanel
N22	levetiracetam, perampanel , carbamazepine, topiramate

**Supp. Table 3.** Number of cells expressing NeuN and S100 $\beta$  + NeuN- in the hippocampus, cortex and amygdala. The values are shown as mean and standar deviation.

	<b>Hippocampus</b>		<b>Cortex</b>		<b>Amygdala</b>	
	<b>Control</b>	<b>Epilepsy</b>	<b>Control</b>	<b>Epilepsy</b>	<b>Control</b>	<b>Epilepsy</b>
<b>Astrocytes (S100<math>\beta</math>+ NeuN-)</b>	898 (1333)	1435 (1581)	4275 (4677)	8251 (15429)	2979 (3749)	5553 (8735)
<b>Neurons (S100<math>\beta</math>- NeuN+)</b>	9271 (13964)	3777 (5705)	25614 (13824)	4963 (5966)	5968 (2478)	8885 (7425)

**Supp. Table 4:** Mean and sd of percentage of tetraploidy associated with Engel score 2 years after neurosurgery.

Engel	1 <i>N=15</i>	2 <i>N=3</i>	3 <i>N=1</i>	4 <i>N=3</i>	p
<b>% 4C S100β amygdala</b>	11.9 (4.66)	. (.)	. (.)	18.3 (.)	0.307
<b>% 4C NeuN amygdala</b>	3.88 (1.84)	. (.)	. (.)	5.80 (.)	0.419
<b>% 4C S100β cortex</b>	11.5 (7.38)	9.30 (2.26)	. (.)	11.2 (.)	0.926
<b>% 4C NeuN cortex</b>	2.53 (2.99)	3.20 (4.10)	. (.)	0.10 (.)	0.716
<b>% 4C S100β Hippocampus</b>	10.4 (6.69)	15.3 (13.1)	27.2 (.)	16.8 (.)	0.253
<b>% 4C NeuN hippocampus</b>	2.34 (2.04)	0.60 (0.14)	0.70 (.)	2.80 (.)	0.594

**Supp. Table 5:** Mean and sd of percentage of tetraploid neurons or astrocytes of patients that have presented (Yes) or who did not present febrile crisis.

	No <i>N=9</i>	Yes <i>N=2</i>	p
<b>% 4C S100β amygdala</b>	13.2 (4.95)	. (.)	.
<b>% 4C NeuN amygdala</b>	4.26 (1.81)	. (.)	.
<b>% 4C S100β cortex</b>	11.4 (6.61)	7.70 (.)	.
<b>% 4C NeuN cortex</b>	2.14 (2.85)	6.10 (.)	.
<b>% 4C S100β Hippocampus</b>	11.6 (7.68)	21.1 (13.2)	0.487
<b>% 4C NeuN hippocampus</b>	2.01 (1.94)	2.30 (.)	.