Supplementary Table 1. Detailed summary of literatures on factors associated with seizure outcome in epilepsy surgery of low-grade epilepsy-associated neuroepithelial tumors

Study	No. of patients	Types of tumor (percent)	Parameters for seizure outcome	Factors associated with poor seizure outcome	Factors irrelevant to seizure outcome
Babini et al. (2013))	30	GG (66.7%), DNT (13.3%), PXA (6.7%), Gangliocytoma (3.3%), Angiocentric glioma (3.3%), Papillary GNT (3.3%), Extraventricular neurocytoma (3.3%)	Good: Engel class I (n=26, 86.7%) Poor: Engel class II–III (n=4, 13.3%), at f/u, f/u duration of mean 7.1 years (range, 1–17 years)	Younger age at sz onset ≤4 years at sz onset Tailored surgery in temporal lobe tumors	Age at surgery, duration of epilepsy, secondary generalization, sz frequency before surgery, location of tumor, side of tumor location
Brahimaj et al. (2014)	18	DNT (27.8%), PXA (16.7%), GG (11.1%), Desmoplastic GG (11.1%), Low-grade glioma (11.1%), Pilocytic astrocytoma (11.1%), Oligodendroglioma (5.6%), Fibrillary astrocytoma (5.6%)	Good: sz free (n=8, 44.4%) Poor: persistent sz (n=10, 55.6%), at last f/u, mean f/u duration of 39 months (minimum, 6 months)	Greater number of AEDs tried before surgery	Age at sz onset, age at surgery, gender, contralateral ED on EEG, extent of resection
Daszkiewicz et al. (2018)	52	GG (92.3%), DNT (7.7%) (tumors located in mesial-basal part of the temporal lobe were included)	Good: Engel class I (n=45, 86.5%) Poor: Engel class II–III (n=7, 13.5%), at last f/u, f/u duration of mean 2.9 years (range, 1–7 years)	Age > 6 years at surgery Duration of epilepsy > 1 year	Extent of tumor, coexistence of cortical dysplasia, surgical approach, extent or resection
Ehrstedt et al. (2017)	25	GG, DNT, Infantile desmoplastic GG (proportions unknown)	Good: Engel class I (n=45, 86.5%) Poor: Engel class II–III (n=7, 13.5%), at last f/u, f/u duration of mean 2.9 years (range, 1–7 years)	STR	Age at sz onset, gender, duration of epilepsy, drug-resistant epilepsy before surgery, tumor location
Faramand et al. (2017)	92	DNT, GG, Demoplastic GG, Angiocentric glioma, GNT not specified (proportions unknown)	Good: Engel class I (n=74, 80.4%) Poor: Engel class II–V (n=18, 19.6%) at last f/u, f/u duration of ≥12 months	STR	Age at sz onset, age at first assessment, age at surgery, gender, duration of epilepsy, secondary generalization, tumor location, side of tumor location, tumor type
García-Fernández et al. (2011)	21	GG (47.6%), DNT (42.9%), Gangliocytoma (9.5%)	Good: sz free (n=18, 85.7%) Poor: persistent sz (n=3, 14.3%), at last f/u, f/u duration of mean 4.68 years (SD, 2.13; minimum, 1 year)	STR	Age at sz onset, age at surgery, duration of epilepsy, tumor location, side of tumor location, type of tumor, drug-resistant epilepsy, number of interictal epileptogenic foci on EEG, interictal ED on EEG, extent of resection
Khajavi et al. (1995)	15	GG (100%)	Good: sz free or ≥90% sz reduction (n=12, 80.0%) Poor: <90% sz reduction (n=3, 20.0%), at last f/u, f/u duration mean 42 months (range, 18–107 months)	STR	Extended resection of epileptogenic foci utilizing iEEG
Khajavi et al. (1999)	34	GG (44.1%), DNT (20.6%), Low-grade astrocytoma (20.6%), Oligodendroglioma (11.8%), Mixed glioma (2.9%)	Good: sz free or ≥90% sz reduction (n=29, 85.3%) Poor: <90% sz reduction (n=5, 14.7%), at last f/u, f/u duration mean 43 months (range, 18–126 months)	Older age at surgery STR	uration of epilepsy, sz frequency before surgery, tumor type, location of tumor,
Ko et al. (2019)	58	GG (46.6%), DNT (48.3%), Pilocytic astrocytoma (3.4%), Papillary glioneuronal tumor (1.7%)	Good: sz free (n=51, 87.9%) Poor: persistent sz (n=7, 12.1%), at last f/u, f/u duration of median 5.6 years (IQR, 3.2–10.0; minimum, 2 years)	Univariate: -Longer duration of epilepsy -Greater number of AEDs taken before surgery -STR -Temporal location of tumor Multivariate: -STR	Age at seizure onset, gender, f/u duration, sz frequency before surgery, sz semiology, drug-resistant epilepsy, duration of video EEG monitoring, generalized ED on EEG, side of tumor location, iEEG monitoring, tumor type, associated FCD
Minkin et al. (2008)	24	DNT (100%)	Good: Engel class I (n=20, 83.3%) Poor: Engel class II–III (n=4, 16.7%), at last f/u, f/u duration of mean 6.7 years (range, 1–16 years)	Presence of generalized sz	Age at sz onset, age at surgery, gender, EEG concordancy, pathology (simple/complex/nonspecific), malformation of cortical development, f/u duration
Nolan et al. (2004)	26	DNT (100%)	Good: sz free (n=22, 84.6%) Poor: persistent sz (n=4, 15.4%), at 12 months after surgery	Duration of epilepsy >2 years Age at surgery >10 years STR	Age at sz onset, gender, presence of developmental delay, presence of focal neurological deficit, sz semiology, MRI appearance of tumor (typical/atypical/enhanced), utilization of ECoG, pathologic classification of DNT (simple/complex/unclassified), presence of cortical dysplasia
			Good: sz free (n=16, 61.5%) Poor: persistent sz (n=10, 38.5%), at last f/u, f/u duration of mean 4.3 years (SD, 2.5; range, 1–11 years)	STR	Age at sz onset, gender, duration of epilepsy, age at surgery, presence of developmental delay, presence of focal neurological deficit, sz semiology, MRI appearance of tumor (typical/atypical/enhanced), utilization of ECoG, pathologic classification of DNT (simple/complex/unclassified), presence
Ogiwara et al. (2010)	30	GG (100%)	Good: Engel class 1 (n=27, 90.0%) Poor: Engel class II (n=3, 10.0%), at last f/u, f/u duration of mean 3.4 years (range 1 month – 8.2 years)	None	Age at surgery, gender, tumor location, extent of resection, utilization of intraoperative ECoG
Packer et al. (1994)	60 (≥1 sz before surgery) 50 (≥5 sz before surgery)	GG (68.3%), Low-grade glioma (18.3%), PXA (6.7%), Intermediate-grade glioma (3.3%), Mixed low-grade glioma (3.3%)	Good: sz free or ≥75% sz reduction (n=47, 78.3%) Poor: <75% sz reduction (n=13, 21.7%), at 2 years after surgery	Parietal location of tumor STR	Age at surgery, duration of epilepsy. sz semiology, sz frequency before surgery, tumor type
			Good: sz free or ≥75% sz reduction (n=38, 76.0%) Poor: <75% sz reduction (n=12, 24.0%), at 2 years after surgery	Parietal location of tumor STR Duration of epilepsy >1 year	Age at surgery, sz semiology, sz frequency before surgery, tumor type
Ramantani et al. (2014)	29	GG (55.2%), DNT (44.8%)	Good: Engel class I (n=22, 75.9%) Poor: Engel class II–V (n=7, 24.1%), at last f/u, f/u duration of mean 7.3 years (SD, 3.0; range, 1.3–12.3 years)	STR	Age at onset, age at surgery, duration of epilepsy, generalized sz
Uliel-Sibony et al. (2011)	41	Pilocytic astrocytoma (48.8%), GG (29.3%), Low-grade oligodendroglioma (14.6%), DNT (7.3%) (tumors located in temporal lobe were included)	Good: Engel class I (n=34, 82.9%) Poor: Engel class III–IV (n=7, 17.1%), at last f/u, f/u duration of mean 5.3 years (range, 1–13 years)	Presence of generalized ED on EEG	Age at seizure onset, duration of epilepsy, semiology, tumor type, utilization of ECoG, GTR/STR, extent of resection
Yang et al. (2019)	39	DNT (100%)	Good: sz free (n=26, 66.7%) Poor: persistent sz (n=13, 33.3%), at last f/u, f/u duration of median 92 months (range, 6–155 months)	Presence of satellite lesions on MRI	Age at seizure onset, gender, duration of epilepsy, location of tumor, GTR/STR

GG, ganglioglioma; DNT, dysembryoplastic neuroepithelial tumor; PXA, pleomorphic xanthoastrocytoma; GNT, glioneuronal tumor; f/u, follow-up; sz, seizure; AED, antiepileptic drug; ED, epileptiform discharge; EEG, electoencephalography; STR, subtotal resection; SD, standard deviation; iEEG, invasive subdural electoencephalography; FCD, focal cortical dysplasia; IQR, interquartile range; MRI, magnetic resonance imaging; ECoG, electrocorticography; GTR, gross total resection.
See the end-reference list in main text for references of the Supplementary Table 1.