Supplementary Table 2. Detailed summary of literatures on factors associated with cognitive outcome in epilepsy surgery of low-grade epilepsy-associated neuroepithelial tumors

Study	No. of patients	Types of tumor (%)	Parameters for cognitive functions	Factors associated with poor cognitive outcome	Factors irrelevant to cognitive outcome
Faramand et al. (2017)	90	DNT, GG, Demoplastic GG, Angiocentric glioma, GNT not specified (proportions unknown)	Preoperative full-scale IQ	Longer duration of epilepsy Younger age at sz onset	Age at surgery, tumor location
	41		Postoperative full-scale IQ, at 1 year after surgery	Low preoperative full-scale IQ	Age at sz onset, duration of epilepsy, degree of resection
García-Fernández et al. (2011)	21	GG (47.6%), DNT (42.9%), Gangliocytoma (9.5%)	Preoperative full-scale IQ, performance IQ, motor function of dominant hand, motor function of non-dominant hand, verbal reasoning, auditory processing, vocabulary recognition, visual learning, arithmetic	Younger age at sz onest Drug-resistant epilepsy	Tumor location, side of tumor location
			Preoperative verbal IQ, verbal learning	Younger age at sz onest Drug-resistant epilepsy Left hemispheric tumor	Side of tumor location
			Preoperative vasomotor coordination, visuo-constructional praxis, spatial memory, concept formation	Younger age at sz onset	Drug-resistant epilepsy, tumor location, side of tumor location
			Preoperative delayed verbal recall, reading/understanding	Drug-resistant epilepsy Left hemispheric tumor	Age at sz onset, side of tumor location
			Preoperative visual perception, phonemic and semantic verbal fluency, sustained attention	Drug-resistant epilepsy	Age at sz onset, tumor location, side of tumor location
			Preoperative visual perception, phonemic and semantic verbal fluency, sustained attention	Extratemporal location of tumor	Age at sz onset, drug-resistant epilepsy, side of tumor location
			Postoperative improvement in visual attention, auditory processing, verbal comprehension, verbal delayed recall, spatial memory, executive function/ nonverbal fluency, at 1 year after surgery	Extended lesionectomy (compared to extended resection)	Not mentioned
Giulioni et al. (2017)	Not specified	GG, DNT, PXA, Pilocytic astrocytoma, Angiocentric glioma, GNT not specified, Low-grade glioma not specified, Mixed (proportions unknown)	Preoperative neuropsychological test (normal vs pathologic)	Longer duration of epilepsy	Not mentioned
Ko et al. (2019)	58	GG (46.6%), DNT (48.3%), Pilocytic astrocytoma (3.4%), Papillary glioneuronal tumor (1.7%)	Preoperative full-scale IQ	Univariate: -Longer duration of epilepsy -Greater number of AEDs taken before surgery -STR -Multilobar involvement of tumor Multivariate: -Longer duration of epilepsy	Age at seizure onset, gender, age at surgery, 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
	42	(proportions unknown)	Postoperative full-scale IQ, at median 21.0 months (IQR, 13.2–31.0 months) after surgery	Low preoperative full-scale IQ	Not mentioned
Ramantani et al. (2014)	25	GG, DNT (proportions unknown)	Preoperative full-scale IQ	Longer duration of epilepsy	Age at sz onset, age at surgery, sz frequency before surgery, generalized sz
	24		Postoperative full-scale IQ	Low preoperative full-scale IQ	Not mentioned

GG, ganglioglioma; DNT, dysembryoplastic neuroepithelial tumor; IQ, intelligence quotient; sz, seizure; GNT, glioneuronal tumor; PXA, pleomorphic xanthoastrocytoma; ED, epileptiform discharge; iEEG, invasive subdural electoencephalography; FCD, focal cortical dysplasia; IQR, interquartile range.
See the end-reference list in main text for references of the Supplementary Table 2.