Results: Complex partial seizures ($n = 8$) was the most common semiology with olfactory aura found in 5 of them. Left sided lesions were encountered in 7 patients while 6 patients had right-sided lesions. 7 patients had non-enhancing lesions, 5 patients showed patchy enhancement while 1 patient had strong however heterogenous enhancement of the tumor. 8 patients had tumour in insula with nearly equal extension into frontal and temporal operculum while remaining five patients had tumor in insula with extension in to one of the two lobes. 9 patients underwent subtotal excision as against 4 patients with near total excision. Postoperative complication included hemiplegia in one and speech abnormalities in two patients. Most common histology was grade 2 astrocytomas ($n = 5$) followed by grade 2 ologodendrogliomas ($n = 3$). At a mean follow-up of 10.7 months, 11 patients had Engel 1 seizure control, 1 had Engel 2 control while persistent seizures (Engel 4) was present in only one patient.

Conclusion: Insular gliomas present with complex partial seizures with olfactory aura. Majority of the gliomas are WHO grade 2 astrocytomas and oligodendrogliomas. Judicious surgery combined with adjuvant therapy may provide excellent seizure control with acceptable morbidity.

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Precise epileptogenic zone location with stereotactic electroencephalography navigated by ROSA in patients with focal cortical dyplasia in children

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Objective: To evaluate the application of robotized stereotactic assistant (ROSA) navigated intracranial electrode implantation in precise epileptogenic zone localization. To evaluate the location capability on epileptogenic foci (EF) of stereotactic electroencephalography (SEEG) in patients with intractable symptomatic epilepsy (PISE) in children caused by focal cortical dysplasia.

Method: The data of 15 patients with drug-resistant epilepsy in Capital Medical University Sanbo Brain Hospital from March 2012 to September 2014 who underwent ROSA navigated intracranial electrode implantation, and after resection operation confirmed by pathology with foca cortical dysplasia. We retrospectively analyzed the clinical data of PISE under 14 receiving resective surgery after epileptogenic foci located by SEEG, including age at surgery, age of onset, course of epilepsy, type of seizures, medication, video electroencephalography (vEEG) and MRI pattern, surgery data, pathology and seizure remission after surgery.

Results: 5 PISE were included in our analysis, 10 male and 5 female, with ages at surgery of 4 years to 14 years, ages of onset of 20 days to 11 years, and epilepsy course of 2 years to 22 years, all medically intractable. Two patients showed a normal MRI finding, 4 with obvious MRI findings, 9 with obscure finding, and all with a discordant vEEG pattern. SEEG located EF on frontal lobe in 5 PISE, temporal in 2, central in 1, insular in 1, multiple foci in 5, and multiple lobes in 1. All foci located by SEEG were resected with surgery, and all patients were acquire effective followed-up, from 8 to 36 months. In the 15 patient's follow-up, 10 achieved Engel class I, 3 class II, 1 class III, and 1 class IV. All patients with postoperative pathology were all focal cortical dysplasia, 2 patients FCDIA, 3 patients FCDIB, 6 patients FCDIIA, 4 patients FCDIIB.

Conclusion: For intractable epilepsy in children, focal cortical dysplasia is the most common pathogeny, when non-invasive assessment could not find the epileptogenic foci, SEEG is an effective pre surgical assessment method for PISE with discordant findings of other preoperative examination, especially the ROSA navigated sterotactic electrode implantation. Which was a microinvasive, short time, less-complication, safe-guaranteed and precise technique.

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Indications and diagnostic yield of emergency electroencephalography (EEEG) in an "era" of electrical status epilepticus

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Introduction: The electroencephalogram (EEG) is a unique and valuable measure of the brain's electrical function. The use of EEG in emergent conditions has been boosted with the definition of electrical status epilepticus (ESE), however the precise role and value of EEG in emergent conditions have yet to be clearly defined. Therefore, our objective was to determine the indications and the yield of EEG in an emergency setup.

Method: A descriptive cross sectional study, 20 min standard digital EEGs (10–20 system) were performed. Individual bias was minimized by independent reporting done by two. Authors retrospectively reviewed the reports of eEEGs performed over a period of 12 months.

Results: A total number of 1028 were performed, out of which 166 (16.1%) through emergent requests, nullified 11 due to inadequate information. The mean age of eEEG was 22.0 years, no significant difference compared to routine-EEG (rEEG), Sex-male 57.8% for eEEG, 48.2% for rEEG ($p < 0.05$). The commonest clinical indication for eEEGs was altered level of consciousness 78 (46.9%). None suspected ESE on clinical grounds. The sensitivity of eEEGs for positive yield was 27.1%. Twenty-one had inter-ictal-epiletiform discharges (14 = focal), 16 had background slowing (12 = diffuse), only 4 had ESE (diffuse discharges). Moreover, 2 had burst-suppression, 1 spindle-coma and 1 periodic-lateralized-epileptiform-discharge. Majority (68.2%) with reduced level of consciousness had background slowing; only 1 had ESE.

There was no significant difference between the sensitivity of eEEG versus rEEG ($p > 0.05$).