complaints and address the mood issues to reduce burden of memory dysfunction in patients with epilepsy.

A0026: Children (12–18 Years Age) of Women with Epilepsy Have Lower Intelligence, Attention, and Memory: Observations from the Kerala Registry of Epilepsy and Pregnancy

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Objective: We aimed to study the cognitive outcome of 12- to 18-year old children of women with epilepsy (WWE).

Methods: Children of WWE (12–18 years) under follow-up in Kerala Registry of Epilepsy and pregnancy (n = 86) were evaluated with Wisconsin Card Sorting Test (WCST), trail making test (TMT), Rey auditory verbal learning test (RAVLT), and Rey–Osterrieth complex figure test (ROCFT).

Results: There were 41 women with generalized epilepsy (47.7%) and 45 with localization-related epilepsy (52.3%). Antiepileptic drugs (AEDs) exposure was as follows: carbamazepine (26), valproate (21), phenytoin (five), phenobarbital (three), polytherapy (25), and six were unexposed. The full-scale IQ (FSIQ) and higher order executive functioning of children of these 86 WWE showed significant difference with AED exposure. The FSIQ mean ± SD for different AEDs were phenobarbital: (73.6 ± 14), phenytoin: (87.7 ± 22.1), carbamazepine: (96.4 ± 8.2), valproate: (93.6 ± 13.6). The FSIQ for those exposed to phenobarbital was significantly (p = 0.045) lower than others, whereas those children unexposed to AEDs had high FSIQ scores (mean = 97.92, SD = 10.72; p = 0.028). Higher order executive functioning, specifically the ability to maintain and shift set was found to be low in children exposed to phenobarbital and valproate monotherapy compared with no AED exposure (p = 0.049).

Conclusion: IQ and higher order executive functioning were significantly lower for 12- to 18- year-old children of WWE exposed to different AEDs when compared with nonexposed children. Thus, antenatal AED exposure is an important predictor of low FSIQ and higher order executive functioning.

A0027: Effect of Antidepressants (Sertraline, Escitalopram) in Combination with Antiepileptic Drugs (Sodium Valproate, Levetiracetam) on Seizures, Cognitive Impairment, and Oxidative Stress in Rats

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Objectives: Depression is a major comorbidity in persons with epilepsy (pWE). The effect of antidepressants sertraline (SRT) and escitalopram (ESC) in combination with sodium valproate (SV) and levetiracetam (LEV) on seizure and cognitive impairment in rats was studied.

Methods: The male Wistar rats (200–250 g) were trained for Morris water maze (MWM), passive avoidance (pA) and elevated plus maze (EPM) test and baseline trials conducted before subjecting to pentylenetetrazole (pTZ)-induced kindling. SV and LEV were used in combination with SRT and ESC to evaluate effect on seizure development, cognition, and biochemical parameters. SRT (25 mg/kg), ESC (15 mg/kg), SV (150 mg/kg), and LEV (300 mg/kg) were injected daily at the same time and seizure stimuli given every alternate day 4-h,1-h, and 30 minutes, respectively, after dosing with above drugs. On day 49, retention trials performed, rats sacrificed, and blood and brains collected for malondialdehyde (MDA) and glutathione (GSH) estimation.

Results: SRT 25 mg/kg per se showed no protective effect, with SRT and LEV 12.5% and ESC and SV group none of the rats were kindled. In EPM, kindling increased transfer latency and drug treatments were ineffective. In PA, kindling did not alter transfer latency but SRT alone and SRT + LEV treatment decreased it as compared with baseline ($p < 0.001$). On combining SRT with LEV, opposite effects in MWM and PA were observed. There was a significant decrease in level of MDA in SRT as well as ESC + SV group as compared with normal control on day 49.

Conclusion: Use of antidepressants in PWE has to be done cautiously as their effect on seizure and cognitive impairment may vary.

A0028: "Super-Focal" Cortical Resection in MRI-Negative Epilepsy using Multimodal Imaging-Guided Stereo EEG: A Case Report

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Objective: To present an epilepsy surgery case report from the Comprehensive Epilepsy Program (CEP) at Austin Health (Heidelberg, Victoria, Australia). In this case, multimodal imaging-guided stereo EEG allowed for a "super-focal" resection adjacent to eloquent cortex with excellent postsurgical outcome.

Methods: Patient records at the Austin Health were reviewed. Clinical details and investigations were summarized. The patient underwent video EEG monitoring, MRI at 3 and 7 Tesla, MEG, PET, SPECT (ictal and interictal), functional-MRI (EEG-fMRI and resting state functional connectivity) prior to proceeding to invasive monitoring using stereo-EEG and electrical stimulation.

Results: All investigations were reviewed at the Comprehensive Epilepsy Program Meeting at Austin health and a plan was formulated for a very limited parietal corticectomy adjacent to eloquent cortex. The patient underwent surgery without suffering a neurological deficit, and had an excellent outcome (Engel class 1B) at 12 months.

Conclusion: In selected cases, excellent outcomes can be achieved using multimodal imaging guided stereotactically