Conclusion: Reduced level of consciousness is the comments indication for eEEG, only a minority had ESE. Sensitivity of eEEG for a positive yield is the same as of routine EEG.

http://dx.doi.org/10.1016/j.ijep.2015.12.036

Efficacy of add on corticosteroids in the management of pharmaco resistant epilepsy in Lennox Gastaut syndrome (LGS), multi center pilot study

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Introduction: Lennox–Gastaut syndrome (LGS) is a childhood epileptic encephalopathy, which is notoriously difficult to treat. Children often end up on poly-pharmacy with numerous anticonvulsants, causing hazardous adversities. The aim was to investigate efficacy of corticosteroids in the management of pharmaco-resistant epilepsy in LGS.

Method: Single armed, open-labeled, efficacy trial with add on corticosteroids was performed over 24-weeks. Primary outcome parameter was seizure freedom, secondary outcome parameters were safety, improvement in behaviour and quality of life. Intravenous methyl-prednisolone was given 30 mg/kg over five days, followed by oral prednisolone 2 mg/kg for 9 days. Steroid was weaned gradually over six weeks. Twice weekly pulses of prednisolone (2 mg/kg) were commenced thereafter, 30 mg/kg intravenous methyl-prednisolone once in 6-weeks. Patients were monitored closely at regular intervals.

Results: Twenty one children, mean age 5.7 years (2.3–16.3 years), males – 11, fulfilled the inclusion criteria. All had daily seizures; axial/axio-rhizomelic tonic seizures (21), myoclonic (16), drop attacks (11), atypical-absences (5). Four dropped out on days 5, 8, 12 and 13 due to hospital-acquired-infection, maternal concerns, uncontrollable hypertension and severe urinary tract infection respectively. All who completed up to day-14 had >50% seizure reduction (seizure freedom in 12). Two relapsed between 18 and 24 weeks. Three had positive urine sugar, all had significant rise in BMI. Height-velocity and electrolytes remained unchanged. The quality of life and childhood behavior scores improved significantly ($P < 0.05$) by 24 weeks.

Conclusion: Majority achieved significant seizure control through steroids, with minimum adverse effects. The quality of life and behavior scores improved significantly. Suggest randomized-blinded-placebo-controlled study to confirm the findings.

http://dx.doi.org/10.1016/j.ijep.2015.12.037

Knowledge and attitude about seizures among caregivers of patients with supratentorial craniotomy

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Background: The risk of seizures in patients after craniotomy, especially in supratentorial approach is high in first five years of surgery. Providing comprehensive home care is mandatory to prevent seizures and to reduce the complications related to it. So it is necessary for caregivers of these patients to have adequate knowledge about seizures and its management along with a positive attitude towards caring them.

Objective: Study was aimed to assess knowledge and attitude about seizures among caregivers of patients who underwent supratentorial craniotomy.

Material and methods: A descriptive study was conducted using purposive sampling on 100 caregivers of postoperative supratentorial craniotomy patients in a tertiary care hospital in India. A structured questionnaire was prepared to assess knowledge and attitude of the caregivers related to various aspects of seizures.

Results: Mean knowledge score of caregivers was 57.34% (28.67 ± 2.80 out of 50) and attitude was 75.50% (75.5 ± 4.68 out of 100). So it is essential to take steps to improve knowledge and attitude of caregivers of postoperative supratentorial craniotomy patients by timely guidance and counseling services to ensure best possible care in terms of prevention and management of seizures in these patients.

http://dx.doi.org/10.1016/j.ijep.2015.12.038

Transient internuclear ophthalmoplegia in post anteromesial temporal lobectomy

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Internuclear ophthalmoplegia (INO) due to lesion in medial longitudinal fasciculus was described due to head injury, multiple sclerosis, pontine infarct and drug intoxication. INO due to head injury was reversible and may be due to ischemia of perforators of vertebrobasilar circulation. Post operative INO is a possibility in brainstem surgery but as a complication of classical epilepsy surgery is not available in the English literature searched.

We present a classical case of left mesial temporal sclerosis for which left anteromesial temporal lobectomy was done. Surgical procedure was uneventful. No hematoma noted at surgical site. Patient had post operative left INO with

MRI showing signal changes in midbrain with no features of infarct. Considering the possibility of demyelination Visual evoked potentials was done which was not suggestive of it. Patient had spontaneous improvement in 1 week after a short course of steroids. The probable explanation for transient internuclear ophthalmoplegia may be due to vasospasm of perforators supplying pons and caudal mesenecephlon which is a possibility if pia is breached during posterior dissection of hippocampus or injury to any small vessel which was not noticeable during the surgery.

We should be aware of such complication for better counselling and prognostication.

http://dx.doi.org/10.1016/j.ijep.2015.12.039

Demographics of epilepsy and antiepileptic drugs utilization in India: Results of an observational study

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Objective: To understand demographic profile and treatment modalities and co-morbidities in patients with epilepsy.

Material and methods: A cross-sectional, observational, non-interventional study was conducted among adult Indian patients with epilepsy. Demographic information, epilepsy type, seizure control, seizure freedom with current therapy, comorbid conditions and usage pattern of antiepileptic agents (AED) according to age group and gender were recorded. Safety was assessed by recording adverse drug reactions.

Results: The study included 973 patients (females 38.7%) with mean age of 35.6 years. Only 3.56% patients were not educated while 45.31% patients were employed. Only 1.2% patients had history of brain injury. The mean frequency of seizures during previous six months was 24.0 (±49.12) while the mean duration of epilepsy was 5.8 (±5.78) years. EEG was the most common (59.7%) investigation modality. A total of 109 (11.2%) patients had comorbid medical illness among which hypertension was seen in 29.36% patients. Levetiracetam was used in 583 (59.9%) patients while valproate, clobazam, and phenytoin were used in 16.3%, 14.8% and 13.6% patients respectively. Effectiveness and safety/tolerability profile were two most important considerations for selecting AED. A total of 924 (95.00%) had seizure control with during previous six months while mean seizure free interval was 7.1 (±4.09) months. Levetiracetam was used in 34.92%. 45.73% and 61.11% patients and valproate in 15.16%, 10.85% and 4.55% patients in the age group of 18–30, 31–50 and 51–75 years respectively. Levetiracetam was used in 57.72% and 63.40% while valproate was used in 18.96% and 11.67% male and female patients respectively. Adverse event rate was only 0.1%.

Conclusion: Epilepsy is common in adult patients. Hypertension is the most common comorbidity. Levetiracetam is the most commonly used AED across all studied age groups and in both genders. Control of epilepsy with current treatment is satisfactory with no major adverse events.

http://dx.doi.org/10.1016/j.ijep.2015.12.040

Global Campaign against Epilepsy – The present international action

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The presentation describes two great events in the field of prevention and control of epilepsy internationally, i.e. the Global Campaign against Epilepsy (GCAE) in 1996 and the WHA68.20 Resolution approved by the 68th World Health Assembly (WHA) in 2015.

During the last two decades, the GCAE has successfully implemented in several low- and middle-income countries. A number of cases of good practice are showed and those made the motivation and basis for a WHO resolution specially for epilepsy passed through by the 68th WHA recently.

http://dx.doi.org/10.1016/j.ijep.2015.12.041

Seizure outcome following primary motor cortex-sparing resective surgery for perirolandic focal cortical dysplasia

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Objectives: We present a case series of patients who underwent perirolandic resection for medically refractory focal epilepsy and histological evidence of focal cortical dysplasia. Our aim was to specifically evaluate the outcome of a surgical strategy intended for seizure freedom while preserving primary motor cortex function.

Materials and methods: Thirteen patients undergoing perirolandic resections for pharmacoresistant focal epilepsy between 2010 and 2015 who demonstrated histological evidence of focal cortical dysplasia were selected from a prospectively maintained database. Presurgical evaluation included video EEG telemetry and 3T MRI brain for all patients. Eight patients underwent interictal FDG PET scan. Intracranial EEG monitoring was done for 8 patients, six by conventional subdural grids and depths and two by SEEG technique. Additional techniques included extraoperative cortical stimulation mapping, intraoperative electrocorticography (ECoG), intraoperative motor cortex mapping and awake surgery in various combinations. In all cases (lesional and nonlesional), resection was intentionally limited for anatomic preservation of the primary motor cortex.