

HDAC11 (4.10 ± 1.33 fold, $p = 0.043$) expression was observed in HS as compared with control. We did not observe any significant changes in the HDAC2, HDAC3, HDAC7, HDAC8, and HDAC9 levels in MTL-ES when compared with control.

Conclusion: This is the first comprehensive study that demonstrated the significant changes in various HDACs in HS patients, providing a rationale for conducting further exploratory studies.

A006: An Evaluation of Factors Influencing Adherence to Antiepileptic Medications (AEDs): A Cross-sectional Hospital-Based Study—An Overview and Recommendations to Improve

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Objective: Long-term treatment by antiepileptic drugs (AEDs) is vital for effective control of seizures in patients with epilepsy (pWE). The present study was performed to measure extent and factors influencing adherence to AEDs.

Methods: The present study was a prospective, cross-sectional study, involving PWE reporting at a tertiary care hospital. The extent of adherence to AEDs was measured using Morisky Medication Adherence Scale (MMAS). Data from 451 patients with confirmed diagnosis of epilepsy were subjected to univariate analysis using Chi-square test to observe association between AED adherence and different variables. Further the predictors of adherence were analyzed using binary regression analysis.

Results: There were 251 (55.7%) male and 198 (43.9%) female PWE. The extent of adherence to AEDs was high among 326 (72.3%) and low in 125 (27.7%). The socioeconomic status ($p = 0.043$) and type of epilepsy ($p = 0.033$) were found to be significantly associated with AED adherence. However, no significant difference was observed between adherence and age, gender, marital status, epilepsy duration, number, and type of AEDs, and occurrence of adverse drug reactions. Patients with focal epilepsy and those from the middle/lower to middle socioeconomic classes were less likely to be nonadherent. The primary reason for nonadherence was forgetfulness.

Conclusion: Forgetfulness was a primary preventive factor for AED nonadherence. We recommend methods to improve the same using multiple measures to maximize adherence and minimize development of pharmacoresistance to AEDs in PWE.

A007: Third Generation Cardioselective Beta Blocker Exhibits Significant Anticonvulsant Properties in Pentylene-tetrazole Model in Wistar Albino Rats

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Objective: To evaluate the anticonvulsant properties of nebivolol in Wistar albino rats by pentylenetetrazole (pTZ) model.

Methods: The research protocol was approved by the Institutional Animal Ethics Committee (IAEC). Standard GLP and CPCSEA guidelines were adhered throughout the study period. Healthy adult Wistar albino rats of either sex weighing between 180 and 250 g were selected as per the study protocol and the animals were procured from the central animal house of the institution. The animals were housed in the experimental laboratory for 7 days. The animals were randomly divided into control, standard, and test groups with six animals in each group. Group-I: control (equivalent volume of normal saline, i.p.), group-II: sodium valproate (150 mg/Kg BW, i.p.), group-III: nebivolol (5 mg/kg BW, i.p.). Anticonvulsant activity in Wistar albino rats was assessed by PTZ model. The data were expressed as mean \pm SE. One-way ANOVA followed by Bonferroni's post hoc test was used to find the statistical significance among study groups.

Results: The standard drug (sodium valproate) showed significant reduction in onset of seizures (time in seconds), duration of seizures (time in seconds), and number of seizures (in 1 hour) when compared with the control group ($p < 0.01$). Nebivolol also showed significant reduction in onset, duration, and number of seizures when compared with group I (control) with p-value less than 0.05.

Conclusion: Nebivolol possesses significant anticonvulsant properties in PTZ model in Wistar albino rats.

A008: Na⁺-K⁺-2Cl⁻ Cotransport Inhibitors and their Effect on Induced Seizure Tests in Experimental Models

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Objective: To evaluate the antiseizure activities of Na⁺-K⁺-2Cl⁻ cotransport inhibitors in chemically and electrically induced seizure test models in Wistar albino rats.

Methods: The study protocol was approved from the Institutional Animal Ethics Committee (IAEC). All animal ethics guidelines (CPCSEA and INSA) were followed throughout the study period. In this study, two screening test models were used one with chemically induced (pTZ) and another with the electrically induced (MES) on healthy, adult Wistar albino rats. The groups of study included, group I: control for PTZ, group II: standard for PTZ (Sodium valproate, i.p.), group III: furosemide for PTZ (i.p.), group IV: torsemide for PTZ (i.p.), group V: control for MES, group VI: standard for MES (diphenylhydantoin, i.p.), group VII: furosemide for MES (i.p.), and group VIII: torasemide for MES (i.p.). One-way ANOVA followed by Bonferroni's post hoc test was used for analysis of data. p-Value of less than 0.05 was considered as statistically significant.

Results: This study found that there was a reduction in total duration of seizures in seconds in both the experimental test drug groups (furosemide and torasemide), that is, groups III and IV, respectively, in comparison to the control group I with $p < 0.05$. It was also found that there was decline in scores of seizures and total number of seizures in one hour in both the experimental test drug groups III and IV when compared with the group I ($p < 0.01$). The statistically significant

difference was also noted with the onset of seizure parameter among group I (control for PTZ) in comparison with groups III and IV ($p < 0.001$). All the above parameters were comparable to the standard group II in respect to the groups III and IV with p -value more than 0.05. In MES model, the parameters like (scores and THLE [tonic hind limb extension]) were also statistically significant different among groups VII and VIII when compared with the control group (group V) for MES with p -value less than 0.05. The above two parameters were also comparable to the standard drug group (group VI) for MES model in respect to the experimental test drug groups (group VII and VIII) with p -value more than 0.05.

Conclusion: Na^+ - K^+ - 2Cl^- cotransport inhibitors (furosemide and torasemide) exhibited significant antiseizure activities in chemically (PTZ) and electrically (MES) induced seizure model tests in Wistar albino rats.

A009: Correlation between Distance from Health Centre and Adherence to Clinic Appointments and Medication Procurement among People with Epilepsy in the Community

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Introduction: In resource limited countries (e.g., India), distance from the health care facility may be a barrier to treatment adherence in people with epilepsy.

Objective: To study the relationship between Euclidean distance of home dwelling from the health care center and number of health center visits to procure medication and medical advice by people with epilepsy.

Methods: The setting of the study was a community-based project in which subjects from across the Ludhiana city in one arm visited the civil hospital on a monthly basis for consultation and to procure antiepileptic drugs. We mapped out the homes of people with epilepsy who attended the epilepsy clinic and calculated the Euclidean distance between each home and the civil hospital. We studied the association between clinic visits and the distance factor; age, gender, educational and economic status, and duration of epilepsy as covariates.

Results: The mean distance between home and hospital was 3.33 ± 0.18 km. The average calculated cost of antiepileptic drugs per month was Rs.303 only. We could not establish a direct correlation between the distance and adherence (p -value = 0.74), although socioeconomic status ($p = 0.175$) and gender ($p = 0.113$) were associated with adherence.

Conclusion: The study is ongoing and although at this stage a correlation between distance and clinic visits could not be established, longer follow-up may demonstrate the distance decay effect.

A0010: Clinicoradiological Evaluation of Newly Diagnosed Epilepsy: A Monocentric Prospective Study from a Tertiary Care Hospital of Eastern India

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Introduction: "Newly diagnosed epilepsy" is defined as a subset of epileptic disorder, which presented or diagnosed first time during study period, and had two or more than two episodes of seizure. Early evaluation and diagnosis of Epilepsy is very important for better treatment.

Aim: Aim of study was to evaluate epidemiological, clinical profile, as well as radiologic characteristics in cases of newly diagnosed epilepsy and to find out correlation between them.

Materials and Methods: It was a prospective and descriptive study of 1-year duration, conducted in the department of neurology in Sriram Chandra Bhanja Medical College and Hospital, Cuttack, Odisha, India. Three hundred newly diagnosed epilepsy patients, more than 5 years of age, were included and subjected to detail clinical and radiological evaluation.

Results: Majority patients in our study were from second and third decades (mean age = 25 years, SD = 11.04) with characteristic male preponderance. Most patients were from rural **Background:** and majority of them (60%) attended neurology clinic after 3 to 10 episodes of seizures. Seizures in awake state and seizures without precipitating factors were more common. Headache was the most common prodromal symptom. Generalized seizure dominated over focal seizure (62:34) with tonic-clonic type (66.67%) being most common in the generalized seizure cohort. Focal seizure with secondary generalization was seen in 70.5% cases. Drowsiness (38%) and Todd's palsy (6%) were most and least common postictal symptoms in our study. Our study also revealed abnormal computed tomography (CT) findings in 70.6% of focal seizures and 24.2% of generalized seizures. Magnetic resonance imaging (MRI) was abnormal in 53.6% of cases. Granulomatous lesion was dominant neuroimaging finding in our study.

Conclusion: This study concluded that males of second and third decades from rural Background are highly prone to epilepsy. Infectious causes like neurocysticercosis and tuberculoma are predominant etiologies in our area. Neuroimaging plays an important role in establishing and localizing etiology of seizure. Any patient coming with history of epilepsy or suspected as a case of newly diagnosed epilepsy must be investigated with neuroimaging for further management.

A0011: Changing Trends of Subacute Sclerosing Panencephalitis— Pre- and Postvaccination Era, Why Should Children Vaccinated against Measles Develop SSPE?

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Introduction: Subacute sclerosing panencephalitis (SSPE) is thought to occur several years after measles infection. Measles vaccine is protective against SSPE. However,