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 MTLE-HS 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 (*p*WE). 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 pharmaco-resistance to AEDs in PWE.

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

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Objective: To evaluate the anticonvulsant properties of nebivolol in Wistar albino rats by pentylenetetrazole (*p*TZ) 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 ± 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 (*p*TZ) 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 experiential test drug groups III and IV when compared with the group I ($p < 0.01$). The statistically significant