model, there was statistically significant decline in total scores of seizures in both the experimental test drug groups when compared with the control group for MES model ($p < 0.01$). The above said parameter was in comparison to the standard drug in group VI with respect to the experimental test drug groups (groups VII and VIII, respectively, with [$p > 0.05$]).

Conclusion: The benzimidazole group of drugs had significant anticonvulsant properties in experimentally induced animal models.

A0020: Evaluation of Anticonvulsant Activity of Propranolol by using Electrically Induced Animal Models

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Objective: To evaluate the anticonvulsant activity of propranolol in Wistar albino rats by maximal electroshock (MES)-induced seizure model.

Methods: The study was approved by the Institutional Animal Ethics Committee (IAEC). The study was conducted in accordance with the CPCSEA guidelines. Healthy, adult Wistar albino rats of either sex weighing between 180 and 250 g were used for the study. The animals were procured from the central animal house and were acclimatized in the experimental laboratory for 7 days. The study consisted of three groups with six animals in each group. Group I: control (equivalent volume of normal saline, i.p.); group II: diphenylhydantoin (25 mg/kg BW, i.p.); group III: propranolol (i.p.). Anticonvulsant activity in Wistar albino rats was assessed by MES model. The data were expressed as median ± SE. Statistical significance among study groups was carried using Graph Pad Instat Software, by ANOVA test followed by Bonferroni's post hoc test.

Results: In group II (standard) all animals were protected by absence of THLE when compared with group I (control). Group II also exhibited significant decline in scores when compared with control group. Administration of propranolol in groups III also showed significant percent decline in THLE as well as scores when compared with group I. Percent decline in THLE and scores in group III were comparable to the group II.

Conclusion: Propranolol exhibits significant anticonvulsant activity in MES model in Wistar albino rats.

A0021: Screening of Antiseizure Activity of Aryl Acetic Acid Compounds in Wistar Albino Rats by using PTZ and MES Tests

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Objective: To screen the antiseizure activity of aryl acetic acid compound in Wistar albino rats using PTZ and MES tests.

Methods: After obtaining the approval from Institutional Review Board (IRB), the healthy adult Wistar albino rats of either sex weighing between 180 and 250 g were procured from the central animal house of the Institution. The CPCSEA guidelines were followed for conducting the experiments on animals. The animals were housed in the research laboratory for 1 week before initiation of study. The animals were then randomly selected and divided into control, standard, and test groups ($n = 6$). Group I: control for PTZ; group II: standard for PTZ (sodium valproate, i.p.); group III: aryl acetic acid compound for PTZ (i.p.); group IV: control for MES; group V: standard for MES (diphenylhydantoin, i.p.); and group VI: aryl acetic acid compound for MES (i.p.). One-way ANOVA with Bonferroni's post hoc test was used for statistical significance.

Results: The standard drug sodium valproate in group II and test drug aryl acetic acid compound in group III showed significant reduction in onset, duration, and number of seizures when compared with the group I (control). Similarly, the standard drug diphenylhydantoin in group V and test drug aryl acetic acid compound in group VI showed significant reduction in scores of seizures and THLE when compared with the group IV (control).

Conclusion: The experimental drug aryl acetic acid compound had significant antiseizure activity in both PTZ and MES tests in Wistar albino rats.

A0022: Peroxisome Proliferator Activated Receptor σ (pPARσ) Agonists and Their Role on Epilepsy-Induced Seizures: An Experimental Evaluative Study

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Objective: To evaluate the antiepileptic properties of peroxisome proliferator activated receptor σ (*p*PARσ) agonists in chemically and electrically induced seizures in experimental laboratory animal models.

Methods: Prior to the experimentation on animals, the research proposal was approved by the appropriate official bodies (Institutional Research Committee [IRC] and Institutional Animal Ethics Committee [IAEC]). The research protocol followed the guidelines as per the directions from the INSA and CPCSEA throughout the study period. The study had a total of eight groups and two animal models each within four groups. Groups I to IV were for chemically induced seizure model and groups V to VIII for electrically induced model. There were vehicle control, standard, and two experimental test drugs belonging to PPARσ agonists for groups I to IV and groups V to VIII for chemically and electrically induced seizure models, respectively. The data were analyzed using appropriate statistical test methods and the p-value of less than 0.05 was considered to be statistically significant.

Results: In this study, there were a total of six parameters (four for chemically induced seizure model and two for electrically induced seizure model) which accounted for determining the statistical difference among control, standard, and experimental test drug groups. In this study, it was found that there was a difference between the experimental test drug groups PPARσ agonists+ in comparison to the control group for number, score, onset, and duration of seizures in chemically induced seizure model (*p*-value more than 0.05). Statistical analysis also confirmed that there was a statistically significant difference between the standard (group II) and