Review of: "Impending role of hippocampal neurogenesis in the development of chronic epilepsy following seizures after Kainic acid and Pentylenetetrazol treatment"

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Potential competing interests: No potential competing interests to declare.

I have reviewed the report on the impending role of hippocampal neurogenesis in chronic epilepsy development following seizures induced by kainic acid and pentylenetetrazol treatment. While the findings are interesting, I have identified several shortcomings in the structure and experiment descriptions.

Firstly, the introduction lacks clarity in describing neuronal abnormalities induced by acute damage. I recommend restructuring it chronologically, emphasizing changes induced by the injury, such as neurodegeneration, cell proliferation (neurogenesis), and gliosis.

Secondly, there are weaknesses in the cited references. I suggest updating the citation related to temporal lobe epilepsy (TLE) to align with the latest definition approved by the ILAE.

Thirdly, the methodology section has deficiencies. For example, the exact times of drug administration are not defined, and the evaluation parameters are mentioned without clarity. Additionally, it's unclear whether the scale used to record the intensity of seizures is a laboratory-specific scale or the Racine scale. Reference to the appropriate scale is needed.

A suggested improvement is the inclusion of a flow chart in the methodology to aid readers in understanding the experimental process.

In the results section, there is inadequate description of the results, lacking information on units, percentage changes, p values, and SRS development. I recommend providing detailed data on these aspects.

Concerning the paragraph discussing Fluorojade B-positive neurons, it is crucial to include percentage increases, p values, and information on other hippocampal regions evaluated, such as CA1, CA3, and the hilus region.

The statement about a decrease in Fluorojade B-positive neurons needs clarification, as FluoroJade indicates neurons in the process of death, and predicting regeneration or repair is not feasible.

The sentence mentioning a notable number of persisting degenerating neurons after 8 weeks should include quantitative data to indicate the extent of lasting damage.

Consistency in abbreviations is essential, such as using "DG/Dg" consistently for dentate gyrus.

Regarding the figures, Figure 1 lacks a scale, Figure 2 needs units, and Figure 5's photomicrographs lack scaling and focus on the hilus instead of dentate gyrus granule cells.