

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

Manana Kandashvili¹

¹ Ilia Chavchavadze State University

Potential competing interests: No potential competing interests to declare.

The conducted research is very interesting and relevant. I would like to point out that the article is quite poorly prepared, which means: inaccurate data, incorrect sentences in English, graphics and images completely unsuitable for an article available for publication, inaccuracy of data in the obtained results. The affiliation of the authors is unclear (first author of the article).

The reference must be indicated: "Although the aetiology of TLE is not completely understood, it is often observed after acute seizures like status epilepticus (SE), brain injury, tumors, meningitis, and encephalitis".

Not necessary sentence: "As neural stem cells give rise to both neuronal and glial progenitors, about fifty percent of newly born cells differentiate into neurons and fifteen percent into glial cells."

The aim of the research is very broad, the results of which will probably require the publication of two articles. Is there an answer to this research goal? "Considering this gap, the present work was designed to study the mechanism of onset of seizures". Pg. 2/18.

Results should be obtained for the purpose of both mentioned studies (proliferation and differentiation): "how the seizures influence cell proliferation and differentiation". Pg. 2/18

Absolute inaccuracy! How was SRS accounted for? Was there a video camera? Or in which part of the day and night was the SRS recording made? The description of spontaneously recurring motor convulsions is very important in which part of the day it is recorded with appropriate statistics: "The rats from the second set in the PTZ and KA groups were regularly monitored for seizure behavior for at least one hour per day up to 8 weeks". Pg. 3/18 „Materials and Methods“.

There should be "and" instead of "or": "after SE or kindling, neurodegenerative changes were studied by Nissl's staining, Fluor Jade B staining, and the TUNEL assay".

Statistical analyses are missing: "from KA-treated groups showed SRS, while SRS was absent in PTZ treated group rats". Pg. 4/18 "Results".

The pictures are quite dark: "Fig. 1. Fluor Jade-B staining in the Dentate gyrus (Dg) of control, KA-treated rats after 48 hrs and 8 weeks, and PTZ treated rats after 48 hrs and 8 weeks".

What is the purpose of Fig. 6. A? (Representative photographs showing morphological characteristics of NADPH-d positive neurons in the DG region of the hippocampus).

The pictures Pg. 14, 15, 16/18 need correction. The pictures' descriptions throughout the entire article should be the same size and style.

The article needs accurate and multiple corrections. The question raised is very interesting, and it concerns a very global problem such as epilepsy. I sincerely appreciate the author's work.