NOTE: Please save this file locally before filling in the table, DO NOT work on the file within your internet browser as changes will not be saved. Adobe Acrobat Reader (available free here) is recommended for completion.

The ARRIVE guidelines 2.0: author checklist

The ARRIVE Essential 10

These items are the basic minimum to include in a manuscript. Without this information, readers and reviewers cannot assess the reliability of the findings.

Item		Recommendation	Section/line number, or reason for not reporting
Study design	1	For each experiment, provide brief details of study design including: a. The groups being compared, including control groups. If no control group has been used, the rationale should be stated. b. The experimental unit (e.g. a single animal, litter, or cage of animals).	Details regarding animal grouping and the standards followed in the present study are provided in Section 2.2. Section 2.2.
Sample size	2	a. Specify the exact number of experimental units allocated to each group, and the total number in each experiment. Also indicate the total number of animals used. b. Explain how the sample size was decided. Provide details of any *a priori* sample size calculation, if done.	Section 2.2. Section 2.2.
Inclusion and exclusion criteria	3	a. Describe any criteria used for including and excluding animals (or experimental units) during the experiment, and data points during the analysis. Specify if these criteria were established *a priori.* If no criteria were set, state this explicitly. b. For each experimental group, report any animals, experimental units or data points not included in the analysis and explain why. If there were no exclusions, state so. c. For each analysis, report the exact value of *n* in each experimental group.	Section 2.2. The present study included 50 male rats. Female rats were not included because of the potential interference of estrogen with the study outcomes. No animals were excluded from the study Section 2.2. No animals, experimental units, or data points were excluded from the analysis Section 2.2. The n is reported in section 2.2. For behavioral, biochemical, and histology data analysis, the animal number is mentioned in their respective figure legends.
Randomisation	4	a. State whether randomisation was used to allocate experimental units to control and treatment groups. If done, provide the method used to generate the randomisation sequence. b. Describe the strategy used to minimise potential confounders such as the order of treatments and measurements, or animal/cage location. If confounders were not controlled, state this explicitly.	Section 2.2. A simple randomisation sequence was generated using the RAND() function in Microsoft Excel, and animals were allocated to the control and treatment groups according to the resulting random sequence Section 2.2. Animals were randomly allocated to experimental groups and maintained under laboratory conditions. Consistent handling, treatment administration, experimental procedures, and outcome assessment protocols were
Blinding	5	Describe who was aware of the group allocation at the different stages of the experiment (during the allocation, the conduct of the experiment, the outcome assessment, and the data analysis).	Sections 2.2 and 2.5 No blinding was performed during animal allocation, however, behavioral data and histopathology are analysed in blinded fashion. The investigator responsible for the study was aware of the group allocation throughout all stages of the experiment.
Outcome measures	6	a. Clearly define all outcome measures assessed (e.g. cell death, molecular markers, or behavioural changes). b. For hypothesis-testing studies, specify the primary outcome measure, i.e. the outcome measure that was used to determine the sample size.	Sections 2.3–2.7; Results Sections 3.1–3.6 Memory improvement and reduction in amyloid beta formation are the primary outcomes which enabled us to set the sample size.
Statistical methods	7	a. Provide details of the statistical methods used for each analysis, including software used. b. Describe any methods used to assess whether the data met the assumptions of the statistical approach, and what was done if the assumptions were not met.	Section 2.8 Section 2.8
Experimental animals	8	a. Provide species-appropriate details of the animals used, including species, strain and substrain, sex, age or developmental stage, and, if relevant, weight. b. Provide further relevant information on the provenance of animals, health/immune status, genetic modification status, genotype, and any previous procedures.	Section 2.2 Section 2.2 Animals were procured from Vyas Labs, Hyderabad, India (CCSEA Registration No. 2085/PO/RcBiBt/S/19/CPCSEA). The rats
Experimental procedures	9	For each experimental group, including controls, describe the procedures in enough detail to allow others to replicate them, including: a. What was done, how it was done and what was used. b. When and how often. c. Where (including detail of any acclimatisation periods). d. Why (provide rationale for procedures).	Sections 2.2–2.7 Sections 2.2–2.5 Section 2.2 Section 2.2
Results	10	For each experiment conducted, including independent replications, report: a. Summary/descriptive statistics for each experimental group, with a measure of variability where applicable (e.g. mean and SD, or median and range). b. If applicable, the effect size with a confidence interval.	Section 2.8; Results Sections 3.1–3.6; Figs. 2–7 Not applicable