Review of: "Neurotherapeutic Comparison of Aripiprazole and Ethanolic Extract of Fragaria Ananassa on Cerebrum and Amygdala of Methamphetamine Intoxicated Male Wistar Rats"

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Potential competing interests: No potential competing interests to declare.

Abstract

1. Some sentences are long and complex, which can make the abstract challenging to read. Simplifying the language and organizing the information in a more structured manner would improve readability.
2. The abstract starts with a statement about the need for therapeutic medications for methamphetamine-induced cerebral and amygdala toxicity, but it would be more effective to provide a brief background on the current limitations of existing treatments and the potential benefits of exploring natural compounds like Fragaria ananassa.
3. The objective of the study should be clearly stated upfront. The sentence used should be rephrased as follows: "Investigating the neurotherapeutic effects of Fragaria ananassa extract on methamphetamine-induced toxicity in rat brain regions."
4. The experimental design could be structured more clearly. For instance, the dosage and timing of administration should be clearly specified for each group, and the rationale for combining the strawberry extract with aripiprazole in one group should be explained.
5. The abstract briefly mentions weight changes and histological findings but lacks specific details on the neurobehavioral tests and oxidative stress marker analysis. Including key findings related to behavioral changes, tissue damage, and oxidative stress would enhance the comprehensiveness of the abstract.
6. The abstract needs a conclusion that should summarize the main findings and their implications. Any limitations or areas for further research could also be mentioned.

Introduction

1. Some sentences are overly complex or contain unnecessary details, which can make the introduction difficult to follow.
2. The introduction lacks a clear and structured flow. There are abrupt transitions when discussing the main concepts. It lacks logical progression and smooth transitions between different topics.
3. Extensive background information about methamphetamine, aripiprazole, and Fragaria ananassa is provided. This can be reduced while more attention is given to the focus of the study, which is the neurotherapeutic comparison between aripiprazole and the ethanolic extract of Fragaria ananassa in methamphetamine-intoxicated rats.

4. The introduction should highlight the specific research gap or question being addressed by the study and provide a brief overview of the key points related to the study's objectives, significance, and methodology.
5. The introduction does not clearly conclude with a statement about the research gap or the specific contribution of the study to the existing knowledge.

Materials and methods

1. Provide a brief list (and some details) of the key chemicals, reagents, and equipment used, especially those critical to the study's procedures.
2. What was the method of extraction (what solvent extract was used), drying, and pulverization of Fragaria ananassa?
3. Mention the species of the rats, their age, sex, and any specific acclimatization conditions.
4. More details on the neurobehavioral tests: specific parameters measured, testing protocols, and scoring criteria.
5. More details on administration and sacrifice of animals: frequency of administration, and the method of sacrifice.
6. Mention the specific biochemical parameters measured, analytical methods, and any standard protocols followed.

Results and Discussion

1. More detailed comparison of results is required to make for a more robust study.
2. Is there similar work that has been done with this plant?
3. Can you compare your findings with previous works?
4. Can you provide reasons why the weight and oxidative stress markers of the animals were altered?

Conclusion

1. The conclusion lacks specificity regarding the extent of restoration achieved by Fragaria ananassa administration. It would be helpful to quantify or describe the degree of restoration observed in the study, such as improvements in neurobehavioral tests, biochemical parameters, or histological findings.

2. What is the clinical relevance of this study?

Limitations

1. Animal model used for the study: Are there any specific differences between rat physiology and human physiology that could affect the interpretation of the results?
2. Any potential methodological limitations that may have affected the study's outcomes, such as sample size, duration of treatment, dosing regimens, or variability in experimental procedures?
3. Recommendations for future research: While recommending a clinical trial is a valuable suggestion, more work is still required in the preclinical phase in terms of pharmacokinetics and pharmacodynamics