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.

Section	Author Write up	Reviewer's Response
Abstract	*Fragaria ananassa,* extracted ethanolically	Authors are advised to remove this portion so that readers can get a better understanding of the introduction.
	Group A was the control group, and B received 100mg/kg of meth. Group C received 200mg/kg of the ethanolic extract of strawberry. Groups D, E, and F received 100mg/kg of meth and 100mg/kg of the ethanolic extract of strawberry, and, finally, 100mg/kg of meth was treated with 200mg/kg of the ethanolic extract of strawberry and 10mg/kg of aripiprazole, respectively	Authors are advised to define “meth.” The method is not fully understandable as it is not well described. Authors mentioned the plant as *F. ananassa* but now strawberry is mentioned.
	The histoarchitecture showed marked degeneration of neuronal cells in group B, which received methamphetamine alone, but knew further improvement in groups that were subsequently treated with the extract.	This portion is not very clear. Can Authors rephrase this part?
	The study further demonstrates that oxidative stress markers (SOD, MDA, CAT) were not significantly altered as long as the ethanolic extracts of strawberry were administered alongside the ingested methamphetamine, in line with other hypotheses.	The abbreviated words should be defined in full. What are the other hypotheses?
Introduction	Methamphetamine was discovered in 1893 and exists as two enantiomers: levomethamphetamine. ([note 2])	Authors did not state the two enantiomers.
	Strawberry (or simply strawberry; *Fragaria ananassa*) ([7])	I wish to recommend that it should rather be written as “*Fragaria ananassa* (strawberry)…….”
		I also think there is no need to bold the words Cerubrum and Amygdala.
		There is no clear biochemical explanation of the condition/pathology that happens in the amygdala and how aripiprazole works to correct such biochemical processes and other biochemical pathological conditions that set in with the use of aripiprazole, and the expectations that *F. ananassa* would possibly work on that. There is also no previous scientific reports on *F. ananassa.*
Method	The study was carried out in the laboratory unit of the Department of Anatomy, Nnamdi Azikiwe University, Nnewi, Anambra State, Southeastern Nigeria. Ethical approval was obtained from the committee of the faculty. All chemicals and	Authors did not indicate the ethical approval number or name of the ethical clearance committee. Chemicals and materials are not listed, and the sources or manufacturers of these chemicals and materials are not indicated.

	materials used were obtained for the study. *Fragaria ananassa* was bought in a generous quantity from a mall at Awka and was washed, dried, ground, and extracted.	What is the name of the mall that *F. ananassa* was bought from, and what is the farm source? What method of extraction was carried out, what were the steps involved in the extraction, and what is the percentage yield?
	After acclimatization, the animals were grouped into eight groups (1, 2, 3, 4, 5, 6, 7, and 8), with four to six rats in each group	There should be uniformity in the number of animals per group. Authors need to confirm the specific number of animals per group.
	Group E: was administered 100mg/kg of methamphetamine and tested with aripiprazole (a standard drug) only.	This sentence is not clear. Is it “treated with” or “tested with”?
	Neurobehavioural tests were carried out on the animals (hanging wire test, Morris water test, and open field test) and were analysed accordingly.	The methods used for the tests are not specified, there are no citations, or these were models developed by the Authors, and if so, this should be clearly stated.
Result and Discussion	(Table 1) shows the distribution of the mean weight of the rats in the various groups before and after the administration of methamphetamine, and *Fragaria ananassa* is shown in (Table 1).	There is a repetition of Table 1. Authors are advised to rephrase this sentence.
	Table 1	The p-value column had zero indicated for groups D, F, and G. The p-value should not be indicated as such. Authors are advised to review this aspect of the results.
	Groups C, D, E, F, and G that received 200mg/kg of ethanolic extracts from strawberry, administered with 100mg/kg of aripiprazole only, administered with 100mg/kg of methamphetamine plus standard drug, F administered 100mg of meth and treated with 50mg/kg of the ethanolic extract of strawberry, and H administered 100mg/kg of meth treated with 200mg/kg of the ethanolic extract of strawberry plus 10mg/kg of aripiprazole, respectively, showed a statistically significant increase in body weight.	Authors are advised to rephrase this aspect.
	Table 2	For CAT, there are no mean values for F, G, and H, so how was the p-value determined? If the p-value is set at 0.05, group H (p-value = 0.03) has a significant drop in MDA levels, and there is a significant drop for group D (p-value = 0.02) for CAT levels. What could account for that?
	Table 3	P-values not indicated for groups G and H.
		Authors had listed a number of neurological tests (hanging wire test, Morris water test, and open field test) that were carried out in the study but only reported the Morris water test. There is no discussion of the results. No report/discussion on the biochemical analyses run.
Conclusion	With proper administration of *Fragaria ananassa,* one can significantly restore the cerebral and amygdala effects caused by methamphetamine intoxication.	There are no experimental results that explicitly evaluated the effects treatments had on the cerebrum and amygdala to draw such a conclusion.
	By increasing the level of knowledge about the effects of these hard drugs, their preventions, and therapeutic steps, affected individuals can be helped in preventing more severe stages of this form of brain damage. ([2]) had said that strawberries contain phytochemicals with potent antioxidant and anti-inflammatory properties, such as anthocyanins, caffeic acid, ellagic acid, and flavonoids including tannins, catechins, quercetin, kaempferol, and gallic acid derivatives. They also contain vitamin C and e carotenoids.	This portion is more of a discussion rather than a conclusion. Authors are advised to rewrite the conclusion.