Reviewer's report

Title: Antidepressant-like Activity of Turmerone in Behavioral Despair Tests in Mice

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Reviewer: Juei-Tang Cheng

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This submission shows new findings regarding the behavioral and neurochemical effects of turmerone, a component of Curcuma aromatica, in mice. Generally, the methods used and the data obtained are enough to support the conclusions that turmerone displays antidepressant-like activity, affects monoamine neurotransmission and inhibits stress-induced increase in serum levels of corticosterone. The manuscript is interesting in the field. But the comments are addressed as follows:

1. Abstract, lines 2-4: The sentence “The present study was undertaken to evaluate the anti-depressive activity of turmerone after one-week administration of the compound ......” should be deleted “of the compound”.

2. Background, lines 6-7 from the bottom: The sentence “In the present study, we aimed to test the effect of turmerone in mice FST and TST assays.” Should be changed to “In the present study, we aimed to test the anti-depressant effect of turmerone in mice using FST and TST.”.

3. Determination of monoamines and their metabolites levels ...... section: The levels of monoamines (NE, DA and 5-HT) and their metabolites (MHPG, DOPAC, 5-HIAA) were measured by HPLC (Waters 610) with electrochemical detection in the three brain tissues. The word “three” should be changed to “four”.

4. The abbreviation of monoamine oxidase A is MAO-A or MAO A. The authors should be unified in the manuscript.

5. Discussion section, Secondary paragraph, line 3 from the bottom: The sentence “Turmerone caused a reduction in the immobility time in FST (Figure 1). ” should be changed to “Turmerone caused a reduction in the immobility time in FST and TST (Figure 1).”

6. One thing to note is that the tail suspension and forced swim tests are designed to predict antidepressant-like efficacy after only 24 hours of drug treatment, so I believe the authors should address why they treated the mice for 1 week prior to test.

Level of interest: An article of importance in its field

Quality of written English: Acceptable
**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.