

Peer Review File

Article information: <https://dx.doi.org/10.21037/lcm-21-25>

Reviewer A: The authors reviewed the clinical trial studies performed on the influence of curcumin on ameliorating the metabolic syndrome and presented a brief overview of the findings. Although from few performed studies a clear conclusion cannot be derived, the presented summary can be informative for the researchers in the field who are interested to pursue clinical studies and further investigate the therapeutic properties of curcumin.

The manuscript might be accepted considering the following corrections and modifications.

Comment 1: In line 61, the authors referred to *Curcuma Longa* as saffron. Saffron and Turmeric have two different plant origins. Saffron is derived from the stigma and styles of the crocus flower. While turmeric is an Indian rhizome of the ginger family. In India the names turmeric and Indian Saffron might be used interchangeably but since the plant origin of saffron and curcumin is different, remove the name saffron here and present *Curcuma Longa* only with the name Turmeric.

Reply 1: Dear doctor, thank you very much for your suggestion. We removed the name saffron.

Changes in the text: Please, see line 37.

Comment 2: In line 73 refer to the Code of regulations for turmeric directly that explains the FDA approval of turmeric. See the link below: https://www.ecfr.gov/cgi-bin/text-idx?SID=fe71b52df3bc620a549cdd06679055bc&mc=true&node=se21.1.73_1600&rgn=div8

Reply 2: Dear doctor, thank you very much for your suggestion.

Changes in the text: We included the Code of Federal Regulation / Please, see line 73.

Comment 3: The name of the author Panahi et al. is written incorrect in Table 1 as Pahani et al. Correct the author name throughout the article.

Reply 3: Dear doctor, thank you very much for your correction.

Changes in the text: Table 1.

Reviewer B: The authors performed a systematic review of the effects of *Curcuma longa* on metabolic syndrome (MS). They searched the studies in recent 10 years from the PubMed, EMBASE, and COCHRANE databases and used PRISMA guidelines to build the review of the included eleven clinical trials. There are some major and minor concerns that should be addressed.

Major issues

Comment 1: In Discussion section, authors described the results from several studies regarding the effects of curcumin on MS; however, there are few discussions about the included eleven clinical trials. What are the main outcomes that the authors concerned? Are there agreements or disagreements among the results of the included eleven RCT studies? In Figure 2, the authors presented there were 11 studies included in quantitative synthesis; however, they did not describe the results of the quantitative analysis in the manuscript. I would suggest further meta-analysis of the included 11 clinical trials to get a solid conclusion of this review.

Reply 1: Dear doctor, thank you very much for your comment; however, our intention was not to build a meta-analysis. We included the comments about the included RCT.

Changes in the text: please, see lines 197-208 / 212-215.

Comment 2: Only one meta-analysis regarding the effects of curcumin on metabolic syndrome was discussed in the manuscript. The discussion part can be improved by adding more discussion on the difference between the results of the present study and previous systemic review and meta-analysis; for example, a recent meta-analysis revealed that curcumin is effective on glycemic control and lipid profile in woman with polycystic ovary syndrome who have high risk of metabolic syndrome.

Reply 2: Dear doctor, thank you very much for your suggestion. We included it.

Changes in the text: Please, see lines 172-176.

Comment 3: The journal titles of many listed references are missing, such as references #21-25.

Reply 3: Dear doctor, thank you very much for your suggestion. We used the endnote to include the references. Maybe some mistake has occurred. We corrected the mistake.

Minor issues

Comment 4: Line 61 “Curcuma longa, popularly known as saffron or turmeric, belongs to the family Zingiberaceae.” As I know, saffron is a spice from the *Crocus sativus* flower. Please double check if your statement is correct or not.

Reply 4: Dear doctor, thank you for your comment. We corrected the mistake. Please, see line 37.

Comment 5: Line 146 The acronym “IDF” was not defined.

Reply 5: Dear doctor, thank you for your comment. We included the definition.

Comment 6: Line 227 Grammar error was noted. I would recommend professional English editing to improve the flow of the manuscript.

Reply 6: Dear doctor, thank you for your comment. We corrected the mistake and a native corrected the MS.