Author’s response to reviews

Title: Acute effect of Clitoria ternatea flower beverage on glycemic response and antioxidant capacity in healthy subjects: A randomized crossover trial

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MS: BCAM-D-17-00716

Author: Chusak et al.

Thank you for consideration of our manuscript for publication in your journal. We have reviewed the above manuscript according to your reviewer’s comments.

Reviewer reports:

Slavko Komarnytsky (Reviewer 1): The manuscript advances understand of antihyperglycemic activity of Clitoria ternatea aqueous flower extract in healthy humans.

Major concerns:

It is not clear why change rather than actual measured values is presented in all figures. This should be corrected before the manuscript can be published.

Re: In clinical trial study, there are variations of individual response for postprandial glycemic response and antioxidant status. Using incremental area under the curves has been recognized as one of methodology to investigate the glycemic response. Because of experimental design, the sucrose solution was loaded into participants.
There are many publications reported the results of postprandial response as incremental are
under the curves. The baseline of individual blood chemical profiles are controlled the
confounding factors before the experiments. The fasting before experiments recommend in this
study, however, individual antioxidant status varied from dietary intake. The representing data of
incremental change and iAUCs are suitable method to report glycemic and antioxidant response
in individual participants.

The described flower extract contains 50 mg/g phenols (5%) and 1 mg/g anthocyanins (0.1%) of
extract dry weight. It is not clear what phytochemicals are present in the remaining 95% of the
extract, and therefore the observed glucose lowering activity cannot be attributed to phenols or
anthocyanins without additional experimental evidence. These numbers should be added in the
discussion section (lines 290-300) to aid with understanding of phenolic contribution to the
observed effect.

Re: We inserted the sentence to discuss other phytochemical compounds following the
suggestion. “We suggest that the phenolic compounds in CTE may contribute to delay the
hydrolysis of sucrose to glucose and fructose by inhibiting intestinal sucrase. However, the
biological action of CTE may be result of other classes of phytochemical compounds. In the
further study, isolation of individual phytochemical constituents is needed to investigate
intestinal α-glucosidase and pancreatic α-amylase inhibitory activity.”

(Reviewer 2): Please include all comments for the authors in this box rather than uploading your
report as an attachment. Please only upload as attachments annotated versions of manuscripts,
graphs, supporting materials or other aspects of your report which cannot be included in a text
format.

Please overwrite this text when adding your comments to the authors.

This manuscript was well prepared. The result seems to be clear.

Re: thank you for your review.

Sincerely,

Sirichai Adisakwattana