Reviewer's report

Title: Postprandial glucose-lowering effects of fermented red ginseng in subjects with impaired fasting glucose or type 2 diabetes: A randomized, double-blind, placebo-controlled clinical trial

Version: 4
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Reviewer: Iris F Benzie

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Ginseng and glycaemic control; Oh et al

The paper describes the results of a 4 week trial with fermented red ginseng (FRG) on fasting plasma glucose (FPG) and insulin and post-prandial changes in these in 42 (21 on treatment and 21 in placebo) subjects with impaired glucose tolerance of type 2 DM. Lipid profile was also measured in subjects pre and post treatment. Result showed decreased postprandial glucose and insulin; no changes in lipids were seen.

Comments:

The paper is written clearly, though the abbreviations used (FPG, FRG and MTT) could cause some confusion.

In the statistical analysis part (page 6), it is stated that it was determined that 32 subjects were needed in each group to allow for a 20% drop out rate - should this be overall (i.e. 16 in each group)?

The results for glucose and lipids should be given in SI units (mmol/l)

Why are data presented as mean +SE, rather than SEM?

It is not clear in table 2 if the difference is post-placebo vs. post treatment, or (as it should be) response to placebo vs. response to the ginseng treat – this needs to be clarified.

Several previous studies have shown that ginseng helps modulate post-prandial glycaemic response. It is not clear how this particular study adds much to knowledge about this; The authors should clarify that – and perhaps discuss why they chose to compare response to placebo rather than against a non-fermented ginseng preparation, which would have been more interesting.

They state that fermented red ginseng has “more potent pharmacological activities than non-fermented ginseng” - for this statement to be confirmed the comparative treatment would need to be non-fermented ginseng, not placebo.

Reference 20 is incomplete