Reviewer’s report

Title: Lack of efficacy of pomegranate supplementation for glucose management, insulin levels and sensitivity: evidence from a systematic review and meta-analysis

Version: 0 Date: 31 Jul 2017

Reviewer: Armin Zittermann

Reviewer's report:

The present meta-analysis investigated the effect of pomegranate on parameters of glucose metabolism such as fasting blood glucose (FBG) and fasting blood insulin (FBI). Only randomized controlled trials (RCTs) were considered for data analysis. It is concluded that pomegranate did not show favorable effects on the improvement of glucose and insulin metabolism.

General comments

Some meta-analyses about the effect of pomegranate on inflammatory process and lipid parameters have already been published. However, a meta-analysis concerning the effect of pomegranate on parameters of glucose metabolism is still lacking. The manuscript is well written and the meta-analysis is well done. This reviewer has only a few minor comments, which are outlined below.

Minor comments

Abstract, line 78: The second sentence of this line should be deleted and the first sentence should be changed as follows: Overall, significant heterogeneity was detected for FBI and HbA1c, but subgroup analysis could not identify factors significantly influencing these parameters.

Line 114: correct 'etabolism' into 'metabolism'.

Methods section, subheading 'Data sources and search strategy' (lines 124-134): Was the meta-analysis registered at PROSPERO?

Lines 175: Change 'previously' into 'pre-specified'.

Line 255: Delete the word 'meanwhile'.

Line 263: Delete the word 'furthermore'.

Line 271: Delete the word 'also'.

Lines 273, 279 and 280: Use only two digits for the presented P-values throughout the manuscript.

Discussion, line 283: At the beginning of the discussion section, one or two sentences should briefly summarize major findings of the present analysis. For example, the last sentence of line 312 up to the first sentence of 314 can be placed at the beginning of the discussion section. However, replace in line 315 the word 'previous' by the word 'pre-specified'.

Lines 293-307: Since the present meta-analysis could not show a statistically significant effect of pomegranate on parameters of glucose metabolism, this paragraph can be shortened.

Lines 342-357: They should also add the limitation that the number of included RCTs with DM patients was small. Therefore, one can only expect a small effect of pomegranate on parameters of glucose metabolism.

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