Reviewer's report

Title: Effect of fenugreek seed intake on glycemia: a meta-analysis of clinical trials

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Reviewer: Shah Ebrahim

Reviewer's report:

This is systematic review and meta-analysis demonstrates a potentially important effect of fenugreek seeds in 10 small trials. The paper is generally well written and the analyses are conducted and reported well.

Major compulsory revisions

1. The search used yielded a very small number of hits (175) which reflects their inclusion of outcome terms in the search strategy. The Cochrane Handbook (http://handbook.cochrane.org/) states: “a search strategy to identify studies for a Cochrane review will typically have three sets of terms: (1) terms to search for the health condition of interest, i.e. the population; (2) terms to search for the intervention(s) evaluated; and 3) terms to search for the types of study design to be included (typically a ‘filter’ for randomized trials).” Searching on outcomes is not recommended as these are not systematically indexed in bibliographic databases.

A rather simplistic RCT filter has been used which will also reduce the sensitivity of the search (#2 Search(clinical trial OR trial* OR trial OR intervention OR therapy - see below for better ways of constructing these). Search terms used for filtering RCTs

45 randomized controlled trial.pt.
46 controlled clinical trial.pt.
47 randomized.ab.
48 placebo.ab.
49 clinical trials as topic.sh.
50 randomly.ab.
51 trial.ti.
23. random$.tw.
24. factorial$.tw.
25. crossover$.tw.
26. cross over$.tw.
27. cross-over$.tw.
28. placebo$.tw.
29. (doubl$ adj blind$).tw.
30. (singl$ adj blind$).tw.
31. assign$.tw.
32. allocat$.tw.
33. volunteer$.tw.
34. crossover procedure/
35. double blind procedure/
36. randomized controlled trial/
37. single blind procedure/

Furthermore, EMBASE was not searched. This database indexes a range of journals that are not included in MEDLINE, has deeper indexing of interventions, contains conference abstracts and is recommended in Cochrane search methodology.

The search must be repeated to ensure that all relevant trials have been found.

Minor essential revisions

2. The rationale for using a random effects model a priori needs to be explained.

3. In these small trials it is common that not all those randomized complete the full outcome assessments. How did the trial investigators deal with missing data (e.g. imputing the last follow up blood glucose; dropping the patient from the analysis; using an average outcome value)? How were these problems dealt with in the meta-analysis?

4. The opening paragraph does not need to repeat the findings of the meta-analysis and could be shortened markedly.

5. The differences observed seem quite large and while they are statistically significant, the authors should focus on answering the question of how clinically important were the observed effect sizes. How do they compare with effects of diet, drugs and physical activity on these outcomes? A related question that would be useful to answer is what size (and design) of trial would be optimal for informing clinical practice.

6. Minor points. Some of the sentence structure needs attention for sense – for example:

p.7, l. 117-8: For none of the outcomes this sensitivity analysis had a substantial effect on the pooled results.

p.15, l. 295-6: For none of the studies major harmful side effects of fenugreek were reported.

p.16, l. 320-1: ...and only part of the trials provided information on blinding status and drop-out rates.
Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests