Reviewer’s report

Title: Effect of maternal calcium intake during pregnancy on children blood pressure. A systematic review of the literature.

Version: 1 Date: 12 July 2006

Reviewer: Ruth Morley

Reviewer’s report:

General

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. In the last sentence of the abstract: “and may be a way to prevent hypertension and its sequels in the next generation is too strong and should be replaced by “and may be a way to reduce the risk of hypertension and its sequels in the next generation.

2. On a population basis, it has been estimated that a reduction in diastolic blood pressure of 2 mm Hg would result in a 15% reduction in risk of stroke and transient ischemic attacks and a 6% reduction in risk of coronary heart disease[15]. Thus, a difference of 2 mm Hg in systolic or diastolic blood pressure was considered clinically significant.

What this says to me is that there are no data on the clinical relevance of a small change in systolic pressure. If this is true it would be better to say so. Otherwise please define and justify a clinically relevant change.

3. Page 8. For the Belizan study please provide N randomised in the private hospital and total N randomised.

4. Table 3. Baseline N needs to reflect number randomised in the RCTs, not number selected for follow up. There could be a footnote indicating N selected for follow up.

5. Discussion. In the first paragraph of the discussion: it is not true that the largest RCT (need reference) was the only study with a small loss to follow up. It had over 50% loss because only subjects from the private hospital were followed up. The authors need to discuss the possible implications, in terms of bias, of selective follow up for both RCT’s.

6. The conclusions need to state explicitly the need for large and well-conducted randomised trials, and I think it would be fair to indicate that future studies should also investigate the effect of maternal calcium supplementation on other cardiovascular risk factors.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. More recently experimental and observational studies in humans and animals have reported an association between maternal calcium intake during pregnancy and blood pressure in the offspring [5,6], with some studies showing contradictory results[1,7].

More recently some experimental and observational studies in humans and animals have reported an association between maternal calcium intake during pregnancy and blood pressure in the offspring [5,6], but others have not [1,7].

2. There are a number of minor typographical errors, to be expected from authors whose first language is not English. I anticipate that these will be dealt with during the editorial process.

3. Please replace calcium maternal intake with maternal calcium intake

4. ..sudden death syndrome (bottom of page 6) should be sudden infant death syndrome.

5. Page 10, last para of methods: For two studies, a small sample size was also a significant problem. Please provide references to these studies.

6. Please provide a reference to I2

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Discretionary Revisions (which the author can choose to ignore)

1. In the conclusions, calcium deficit might be better as ‘low calcium intake’.
What next?: Accept after minor essential revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

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