Author's response to reviews

Title: Serum 25-hydroxyvitamin D is not related to cardiac natriuretic peptide in nulliparous and lactating women

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Author's response to reviews:

Joseph Dunckley
Assistant Editor
BMC-series journals

Dear Mr. Dunckely,
We have modified the manuscript as suggested by the reviewers. Please find below a point-by-point response to reviewers indicating the changes made to the revised manuscript.

Reviewer 2
Reviewer's report:
Reviewer 2 has suggested that the title may not completely reflect the contents of the manuscript and suggests changing it to 'Serum 25-hydroxyvitamin D is not related to cardiac natriuretic peptide in nulliparous and lactating women'.

Response:
We fully agree with this and the title has been changed accordingly.

Reviewer 3
Reviewer's report:

Minor comments
Just wondering why so few nulliparous women completed the 3 month study period? Why was the lost of followup so high?

Response:
We have clarified in the methods section that “Of the 88 nulliparous women enrolled initially, 55 completed 1 month, 27 completed 2 months and 23
completed the 3-month study period. Most subjects who withdrew from the study were contacted and none specified any particular reason for withdrawal. Sufficient follow-up serum samples were also not available except for very few subjects.”

Table 3. I wouldn’t use a p value=”0.00”. I doubt it is equal to “0”. Something like <0.001 would be preferred.

Response: Table 3 was modified to replace “0.00” by “<0.001”.

Reviewer 4
Reviewer’s report:

Major compulsory revisions

The authors have been responsive to the reviewer comments. Indeed, the additional analyses have led the authors to a different conclusion from their original manuscript. However, the new data do not add clarity to the findings. The authors show additional cross-sectional data between baseline (and follow-up) 25-OH D levels and Nt-proBNP, in lactating and nulliparous women, and also relate baseline Nt-proBNP to the number of days postpartum. They conclude that the fall in Nt-proBNP is most likely related to postpartum changes rather than vitamin D supplementation. One confusing aspect of this conclusion is that Figure 1 implies that Nt-proBNP levels plateau at 14-20 days post-partum, which the authors attribute to post-partum physiologic changes. It is unclear, then, what explains the further decrease in Nt-proBNP 2 months later. This decrease may or may not have anything to do with vitamin D supplementation. The inclusion of a control group would have made this study far more useful.

Response:

We fully agree that the lack of a control arm of lactating women who did not receive any vitamin D makes it difficult to know for sure whether the fall in NT-proBNP levels was or was not directly related to the vitamin D supplementation vs. other factors (such as postpartum change).

Our conclusion states “This suggests that the decline we observed in NT-proBNP is unlikely related to vitamin D administration but is probably related to postpartum blood volume changes.”

We believe that the first part of this conclusion is valid because we have demonstrated that there were no significant correlations between the change from baseline in 25(OH)D concentrations or PTH with the change from baseline in NT-proBNP and PRA levels, suggesting that the decline we observed in NT-proBNP is unlikely related to vitamin D administration.

We agree however that the second part of the conclusion remains speculative, especially because of the further decrease in NT-proBNP at 2 months. We have therefore modified our conclusion which now states “This suggests that the decline we observed in NT-proBNP is unlikely related to vitamin D administration.
but is probably related to other factors such as postpartum blood volume changes."

Reviewer 5
No revisions requested
Response: Thank you.