Author’s response to reviews

Title: The effects of air pollution on vitamin D status in healthy women: A cross sectional study

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Author’s response to reviews: see over
Dear Professor Melissa Norton

Thank you very much for your email message of August, 2010, about the outcome of the re-reviewed evaluation of our above-mentioned manuscript and the kind opportunity to revise and resubmit the paper. We have taken each critique and comment very seriously, and now submit a revised version in response to the reviewers’ comments.

As you have kindly instructed, we submit a point-by-point response to the reviewers’ comments and a revised paper with highlighted changes.

I hereby attest that I have full access to all of the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis.

Thank you for your consideration.

Sincerely yours

Farhad Hosseinpanah, M.D.

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Title “The effects of air pollution on vitamin D status in healthy women”
**Reviewer #1:**

This comment was discussed in the cover letter to the review, but not included in the manuscript. I would like to see it included in the manuscript.

Located some 165 km northwest of Tehran, in the Qazvin Province, it is at an altitude of about 1800 meters above sea level. The climate is cold but dry, due to its position south of the rugged Alborz range.


Summation: There is an increase in solar UVB doses from a difference in surface elevation. The amount seems to be between 20% per 1000 m at the elevation of the two cities. The elevation difference between the two cities is 640 m, implying a difference of 12%. This should translate directly to differences in serum 25(OH)D levels. It would indirectly affect the fraction of the populations below specified 25(OH)D levels. Changes in solar UVB doses with change in surface elevation should be factored into the analysis.

From Table 2: 25-OH-D (ng/ml) 11 (8-14) vs. 15.5 (8.5-26)
The ratio of the two locations is 1.41 plus uncertainty
12/41 = 0.29, so 30% of the difference has to be attributed to difference in solar UVB due to elevation difference.

**Action Taken:**

Agreed and corrected. In response to the valid point raised by the referee, we explained these facts in the revised manuscript.