



Commentaries

Reply: Residential radon and small cell lung cancer. A systematic review

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Dear Editor,

We have read with interest the comment by Bevelacqua et al. [1] regarding our published work entitled “Residential radon and small cell lung cancer. A systematic review” [2] but we do not agree with their comments on the standard methodology we have used to perform this review.

In first place, we have used the PRISMA methodology for systematic reviews which is widely known and accepted [3]. They seem to confound the search strategy with the inclusion criteria since they refer to keywords for obtaining information as inclusion criteria. Regarding the items and categories which we have used to categorize the quality of the included papers (papers fulfilling inclusion criteria), these criteria are commonly accepted. We do not expect any reader to consider wrong the following criteria to weight the quality of included studies: the higher sample size, the better epidemiological design (i.e. cohort study versus case-control study), the number of covariates considered for analysis (the higher the better) or the method for radon measurement. The authors seem to consider valid our previous works [4,5] where we have used these scales, since we suppose that as good researchers they have read them but did not noticed any problems. Furthermore, our scales have been already cited as useful by other researchers [6] in their own systematic reviews. Regarding the type of radon devices, they criticize the fact that we have considered better alpha track devices compared to charcoal devices. This was not our decision, because we followed what it is recommended by the WHO report on residential radon [7], where alpha-track devices are recommended. The authors, again, seem to be not aware of this report, they have not cited it nor any relevant published study on radon and lung cancer.

They also express concern on the positive relationship between radon exposure and risk of small cell lung cancer and in fact they support the results by Cohen et al., published more than 20 years ago, which have been largely criticized because of the ecological design of

this study [8]. It is striking that they express concerns on our work but give credibility to one of the worse epidemiological designs to obtain causal associations such as an ecological design. But the problem is even more important, they are giving credibility to a study observing no association between residential radon and lung cancer, recognizing that institutions such as WHO or US Environmental Protection Agency are wrong on their recommendations on radon as a human carcinogen (again not citing these sources). Furthermore, the BEIR VII report from the US National Academy of Sciences concluded that “there is a linear dose-response relationship between exposure to ionizing radiation and the development of radiation-induced solid cancers in humans” [9]. The authors also seem not aware that the most cited ever published study on radon and lung cancer observed that the histological type most associated with lung cancer was small cell lung cancer. For them, and again, this study which has included more than 21,000 participants seems not to be credible [10,11].

To conclude, Bevelacqua et al. have cited the references they wished to support their statements avoiding to include the most relevant evidence from international organizations on residential radon and lung cancer risk (including small cell lung cancer). We believe that giving credibility to the suggestion that radon is not related with lung cancer may be dangerous and could put on risk to the general public.

Conflicts of interest

None.

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