Cancer mortality risk due to intake of selenium contaminated rice in Iran and Qatar: Implication for an island country on food importation

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Dear Editor,

Sir, selenium contamination is an important consideration in public health. Natural selenium stable isotope, selenium 79, can induce the carcinogenesis, hence, the unwanted long term adverse effect of ingestion of selenium contaminated rice is “cancer”. Some recent reports showed considerable levels of selenium contaminations. For example, Rowell et al. reported that contamination level of rice in Qatar was 5.94–422 mg/kg[1]. Whereas Rahimzadeh-Barzoki et al. reported contamination level of rice in Iran equal to 0.16–0.35 mg/kg[2]. It can be seen that there are significant difference of contamination level in rice sample from these two different settings. For further estimation of cancer mortality risk, the risk can be derived from “reported contamination level (mg/kg) × lifetime cancer mortality risk per unit intake (equal to 6.7 × 10^{-12}/picocurie)[3]. To fulfill estimation, further requirement is to assess the daily intake level of rice among population in Iran and Qatar. Nevertheless, based on the present available data, it can simply say that the local people in Qatar have a higher chance to get cancer mortality. This also imply that the local Qatar people have to limit intake of contaminated rice, which is considered highly contaminated comparing to that of Iran. An interesting explanation is the fact that almost all rice products in Qatar have been imported. Hence, it is the time that Qatar has to reconsider and strictly control the quality of imported rice.

Conflict of interest statement

We declare that we have no conflict of interest.

References


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