



Letter to the Editor

Marine diet and tobacco exposure affects mercury concentrations in pregnant women (I) from Baja California Sur, Mexico



Dear Editor

We have read with great interest the article by Gaxiola-Robles et al. entitled “Marine diet and tobacco exposure affects mercury concentrations in pregnant women (I) from Baja California Sur, Mexico” that is published in the *Toxicol. Rep.* (2014), <http://dx.doi.org/10.1016/j.toxrep.2014.10.005> [1]. Gaxiola-Robles et al. in their article investigated the possible relationships among multiple potential sources of exposure and other factors related to total mercury concentration [THg] in hair samples of pregnant women in the prenatal period. They found significant association between [THg] and fish intake, BMI and tobacco exposure. In research projects, ignoring confounding factors can lead to unreliable and invalid results. According to WHO, due to growing electricity demand during the past decades, environmental exposure to man-made electromagnetic fields (EMFs) has drastically increased. Now, as a result of modern life and the growing need for generation and transmission of electricity as well as development of new telecommunications methods and devices, people are exposed to a complex mix of weak EMFs both at home and at work.

We have previously shown accelerated release of mercury from dental amalgam fillings after exposure to various sources of EMFs such as mobile phones and magnetic resonance imaging (MRI) [3,4]. The similar findings have been reported in microleakage studies of dental amalgam restorations following MRI [5,6]. Furthermore, the results of investigations on the exposure to X-ray as a part of the electromagnetic spectrum have confirmed our results [2]. In spite of these findings, Gaxiola-Robles et al. did not control the exposure to widely used sources of EMFs (e.g., Wi-Fi, mobile base stations, and cordless phones) in their study. In this light, we believe that ignoring this major confounding factor that easily affects the mercury concentration, has significantly affected the accuracy of the results. It is worth mentioning, although the level of mercury released from amalgam restorations following exposure to EMF sources is not usually sufficient for causing toxicity, it can be considered as a significant health risk in specific subpopulations such as pregnant women.

Transparency document

The [Transparency document](#) associated with this article can be found in the online version.

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26 November 2015

3 December 2015

Available online 7 December 2015