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Assessment of BPA levels in urine by HPLC MS

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B isphenol A (BPA), is a synthetic chemical used in the production of plastics and epoxy resins of food packaging. BPA may be associated with adverse health effects. The objective of this study was to assess the level of BPA among a representative sample of Lebanese population residing in Beirut, as well as to assess factors associated with these levels. A representative sample of 501 men and women aged 18-79 years was examined in a cross-sectional manner with a health and food questionnaire, anthropometric measures and urine BPA analysis. Spot urine samples were collected in glass jars, aliquoted in glass containers and frozen at -200C for further analysis. High performance liquid chromatography-mass spectroscopy was used to analyze BPA according to Coughlin et al. (2011) and Ning et al. (2011). We found a mean urine BPA concentration of 3.67 ppb, with a standard deviation of 4.75. Some samples measured high concentrations up to 59.7 ppb, giving the total pattern a skewed distribution. We conclude that the concentration found are comparable to the values found in other countries.

Biography

Youssef Mouneimne has completed his Dr of engineering (1984) and Ph.D in applied chemistry (1986) from Claude Bernard Lyon I University. He worked as research scientist at the "centre de biophysique moleculaire, CNRS" in Orleans , then at Texas A&M university, Baylor and Harvard University. He invented the electroinsertion of proteins into cell membrane and the flow electroporation system for drug delivery, among many other inventions. Actually he is the director of the Central research laboratory at the American university of Beirut. He is actually involved in many research project including extraction of biofuel and other chemicals from algae, analysis of BPA and sodium in food, Benz[O]Pyrine metabolomics.

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