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### **Nutrient composition and mercury concentration in breast milk from lactating women living in post-conflict area in Colombia**

Mercury concentration in breast milk (BM) is a concern in areas of gold mines, because of environmental risk and food consumption.

**Objective:** To identify BM nutrient composition and mercury concentration in a sample of BM from lactating women in post-conflict area in Colombia.

**Methods:** Information of socio-economic status was recorded. BM samples collected using marmet technique, analysed for energy and macronutrients using MIRIS (BM) analyser, mercury concentration quantified using atomic fluorescence spectrometry. Mother's weight and height were measured. BMI was calculated; food and nutrient intakes were analysed using a semi-quantitative food frequency questionnaire and a 24-hour recall.

**Results:** BM samples from 13 lactating women aged 28 ( $\pm 5.9$ ) in 100ml report 74 ( $\pm 11.0$ )kcal, protein 0.9 ( $\pm 0.4$ )g, fat 4.3 ( $\pm 1.3$ )g and carbohydrates 7.8 ( $\pm 0.6$ )g. Mercury concentration was 0.58 ( $\pm 0.1$ ). 53.8% were overweight, 15.4% obese. Mothers consumed mostly fast food, sugary drinks and low dairy products, fruits and vegetables consumption. A significant positive correlation was found between mother's BMI and fat content in breast milk ( $r = 0.583$ ,  $p = 0.05$ ). There was no correlation between mother's food consumption and mercury levels.

**Conclusion:** Fat content in BM was correlated with mother's BMI in lactating women with high prevalence of overweight and mercury concentration in BM was not associated with mother's food consumption.

### **Biography**

Gilma Olaya Vega has completed her PhD at the University College London. She is the Director of Nutrition and Biochemistry Department, Pontificia Universidad Javeriana. Her research is focus on mother and infant nutrition with the main interest in malnutrition, breastfeeding, complementary feeding and micronutrient (iron zinc) deficiencies. She has been recognized for her research with national awards and one international award.

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