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• 計畫英文名稱	A Simulation Study on the Mother's and Her Infant's Body Burden of Mercury and Lead (II)		
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• 中文關鍵字	孕婦; 血液; 臍帶血; 胎盤; 汞; 魚類攝取		
• 英文關鍵字	Pregnant women; Blood; Cord blood; Placenta; Mercury; Fish consumption		
• 中文摘要	<p>本研究主要目的是探討台北都會區孕婦魚類攝取與血液、臍帶血及胎盤中總汞濃度之相關性。對象為在台中沿海區某醫院生產之孕婦，在孕婦生產前取得同意書並進行問卷之訪視，在生產當天取得母血、臍血、胎盤與頭髮。所有樣本經過濕式消化後，使用汞分析儀(HiranumaHG-310)進行總汞量的分析，並使用問卷得知孕婦魚類攝取量。研究結果發現：母血、臍血、胎盤及母親頭髮中總汞濃度分別為 <math>4.15 \pm 2.73 \mu\text{g/L}</math>、<math>9.82 \pm 5.35 \mu\text{g/L}</math>、<math>16.85 \pm 10.43 \text{ng/g}</math> 及 <math>1.66 \pm 2.16 \text{mg/kg}</math>。有 20% 樣本母血中總汞濃度超過美國 EPA 建議的 <math>5.8 \mu\text{g/L}</math>。在吃魚的頻率方面，可以發現受訪者懷孕後都增加吃魚；受訪者懷孕前平均每月吃 10.6 餐的魚類，懷孕期間則增為每月 16.7 餐。由本研究結果可看出台灣都會區之孕婦體內汞濃度有過高之虞，因此建議相關單位對台灣地區育齡婦女血中總汞進行進一步調查，以減少其對婦女及胎兒之潛在危害。</p>		
• 英文摘要	<p>The aim of this study was to assess the relationship between fish consumption and total mercury concentration in maternal blood, umbilical cord blood, placenta tissue and hair of pregnant women in Taiwan. Our objects are pregnant women who delivered in a hospital at a coastal city in Taichung. We administered a questionnaire before delivery, and collected maternal blood samples, cord blood, placenta tissue and hair after delivery. Mercury concentrations in maternal blood, cord blood, placenta tissue and maternal hair were measured by mercury analyzer/Hiranuma HG-310. A dietitian recorded the quantity of fish consumed via a questionnaire. We found that the average total mercury concentration in maternal blood, cord blood, placenta tissue and maternal hair was <math>4.15 \pm 2.73 \mu\text{g/L}</math>, <math>9.82 \pm 5.35 \mu\text{g/L}</math>, <math>16.85 \pm 10.43 \text{ng/g}</math> and <math>1.66 \pm 2.16 \text{mg/kg}</math>, respectively. Twenty percent cases of the maternal blood mercury concentrations exceeded the US EPA recommended value of <math>5.8 \mu\text{g/L}</math>. Fish consumption while pregnant were higher than fish consumption before pregnancy. Fish consumption before pregnancy was 10.6 meals/month and 16.7 meals/month while pregnant. Our data shows that it is needed to be concerned</p>		

that the higher mercury concentration in pregnant women in Taipei city. Therefore, it is recommended that government should carry on a further survey to the mercury concentration in blood of pregnant women in Taiwan in order to diminish the possible damages to the mothers and fetus.