

臍帯におけるダイオキシン類等化学物質の検討

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Dioxins in Neonatal Umbilical Cord

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Dioxins have an extremely adverse effect on fetuses or infants through placenta and breast milk. Recently, it has been reported that the umbilical cord included dioxins. Because it was difficult to analyse individual umbilical cord analysis for limes of determination sensibility, we mixed substance from two or three umbilical cords and measured dioxins until last year. But, we examined the concentration of dioxins in one umbilical cord this time. According to procedure of Morita, we could measure concentration of dioxins in five umbilical cords from pregnant women. Dioxins were detected in all the samples. The median values of the toxicity equivalent were 0.031pg-TEQ/g wet weight, and 22pg-TEQ/g adipose weight. One, 2, 3, 7, 8-PeCDD and 2, 3, 4, 7, 8-PeCDF of high toxic equivalent coefficient were detected by three examples and five examples respectively. Our data indicated that it was possible to measure the concentration of dioxins in one umbilical cord. Fetuses may receive influence by dioxin in prenatal period. A grade of this study is extremely useful for individual evaluation analysis of risk of dioxins for fetuses.