Maternal smoking effects on infant growth

Berlanga, María del Rocio

Salazar, Gabriela

Garcia, Carola

Hernandez, Jimmy

The influence of maternal smoking the nutrient content of breastmilk and impact on infant longitudinal growth rate is unknown. From birth, 23 smoking (S), (7.1 ± 4.4 cigarettes/day) and 23 non-smoking (NS) mother-infant pairs were followed. The breastmilk volume by deuterium dilution, zinc (Zn), copper (Cu), and iron (Fe) in breastmilk and hair by atomic absorption (AAS) and cotinine levels by radio-immuno-analysis (RIA) were evaluated. Birthweight was similar in contrast to height, and infants grew normally. Height and height-for-age (ZHA) were significantly lower in S infants and weight-for-height (ZWH) was higher in S infants in the third month, caused by slower height growth. Cotinine was 19 times greater in the S mothers and six times higher in their infants, as compared to NS group. Breastmilk volume was 743 ± 119 g/day (S) and 742 ± 111 g/day (NS), with no difference in zinc, copper, iron contents, except for cadmium (Cd). In infant's hair, all minerals were higher in the S grou