Abstract

Objective: To assess if age is a risk factor for low zinc nutritional status in pregnancy, postpartum and in breast milk concentration, and the association between mother zinc plasma level with zinc milk concentration. Design: Cohort study comparing adolescents with adult women, with < 14 weeks of gestation at first prenatal care. Socio demographic and plasma zinc data were collected at that moment and at postpartum time (4 + 1 month). Milk zinc concentrations were also measured at 4 th month postpartum. Setting: Women were recruited from 16 public primary health care services in Uruguay Subjects: 151 adolescents and 161 adult women Results: Adolescent average plasma zinc at < 14 weeks of gestation was 84.4 ± 3.6 ug/dl and did not differ significantly from that for adult women (85.2 ± 13.6 ug/dl). Prevalence of hypozincemia was relatively low with but with no difference by age (14.6% in adolescents and 12.3% in adults). Zinc concentrations in breast milk were similar for adolescents, 1.24 mg. /L (CI 1.06 to 1.44) and adult women, 1.27 mg./L (CI .1.0-1.46). There was no correlation between plasma zinc and breast milk zinc concentrations in adults and a weak correlation in adolescents (- 0.27, p <0.05). Conclusions: Prevalence of hypozincemia in pregnancy was relatively low but similar in adolescents and adult women. Neither pregnancy nor age had negative consequences over postpartum plasma zinc, nor over breast milk zinc concentrations. No correlation was found between mother s plasma zinc and breast milk levels.

Keywords