Conclusion: These results suggest that exposure to toxic metals and trace elements at toxic levels are among the risk factors for prematurity.

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THE EFFECT OF EARLY PARENTERAL AMINO ACIDS, ON GROWTH AND NEURODEVELOPMENTAL OF VERY LOW BIRTH WEIGHT INFANTS

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Aim: To assess the effect of early parenteral amino acids, on growth and neurodevelopment of very low birth weight infants at 36 weeks' postmenstrual age and 18 months' corrected age.

Methods: Infants who received ≥ 3 gr/kg per day of parenteral amino acids within the first 5 days of life were considered early group; those infants who did not receive a minimum of 3 gr/kg per day on any single day within the first 5 days of life were considered late group. Infants' weight, length and head circumference measured at 36 weeks' of postmenstrual age and 18 months' of corrected age. Neurodevelopmental index was evaluated by "Bayley Scales of Infant Development".

Results: There were no statistically differences between the early and late amino acid groups in baseline characteristics; except birth weight. At 36 weeks' postmenstrual age and 18 months' corrected age, there were no statistically differences in weight, length and head circumference between the two groups. In the early group, female babies had bigger head circumference than male babies at 36 weeks' postmenstrual age and 18 months' corrected age. There were no other observed differences among boys or girls. There were no differences between two groups for neurodevelopmental impairment by Bayley mental and psychomotor developmental index.

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THE EFFECT OF HEAVY METALS AND TRACE ELEMENTS IN THE MECONIUMS ON GROWTH

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Many studies suggest an association between heavy metals in blood or placenta and growth. However, there have been no studies that show an association between growth and exposure to trace elements at toxic levels in meconium. Meconium is a matrix that can be obtained easily and noninvasively and is representative of a wide period of exposure in the fetus during gestation. The purpose of this study is to measure the levels of heavy metals (lead, cadmium) and trace elements (zinc, iron, copper) in meconium samples in the industrial city of Kocaeli and to understand their associations with birth weight, birth height and head circumference.

Metal and trace element levels in the meconiums were measured with a flame atomic absorption spectrophotometer.

The metal levels in meconiums were higher in the small gestational age (SGA) group compared to the appropriate gestational age group. In the regression analysis, it was shown that meconium metal levels were among the risk factors for SGA, low birth weight, short birth height and low head circumference.

These results suggest that exposure to heavy metals and trace elements at higher levels are among the risk factors for short birth height, low head circumference and low birth weight.

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NECROTIZING ENTEROCOLITIS IN ASSOCIATION WITH PATENT DUCTUS ARTERIOSIS AND FEEDING INITIATION

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Background: Necrotizing enterocolitis (NEC) is life-threatening multifactorial pathology in very preterm-