

Relationship between infant birth weight and maternal serum magnesium level

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Abstract

Introduction: Low birth weight (LBW) is a major public health problem. LBW is associated with increased neonatal morbidity and mortality. Trace element and magnesium deficiencies have been documented to play an important role in determination of the pregnancy outcome.

Methods: This case-control study was carried out at Alavi Hospital in Ardabil between August 2008- August 2009. Fifty six women who had delivered low- birth- weight infants (<2500gr) were taken as the case group , and from the mothers who had delivered normal birth weight (≥ 2500 gr) infants 56 were selected at random as the control group.

Venous blood sample were obtained from the mothers. Serum zinc level was determined by the Atomic Absorption Spectrophotometer method.

Results Mean of birth weight in infants, maternal age, body mass index in mothers and socioeconomic or demographic factors did not differ between cases and control groups. Maternal magnesium mean (mg/dl) did not differ between cases and controls; $1/79 \pm 0/15$ mg/dl vs. $1/82 \pm 0/19$ mg/dl respectively.

Conclusion: Maternal magnesium concentration has no impact on neonatal birth weight or premature deliveries.

Key Word: low birth weight, magnesium, prematurity

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