

Abstract

Pharmacol Rep. 2006 Jul-Aug;58(4):571-6.

Antepartum/postpartum depressive symptoms and serum zinc and magnesium levels.

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OBJECTIVE: In the present study, we investigated the relationship between depressive symptoms and serum zinc and magnesium level in antepartum and postpartum women.

METHODS: All women received standard vitamin, zinc and magnesium supplementation. Sixty-six pregnant women in the Czerwiakowski Hospital in Kraków were assessed for prepartum depressive symptoms using the Beck Depression Inventory (BDI). Sixty-two and fifty-eight women were also assessed for postpartum depressive symptoms (using Edinburgh Postnatal Depression Rating Scale, EPDRS) at 3 and 30 days after delivery, respectively. Serum zinc and magnesium levels were also determined at these time points, however, the number of examined subjects were diminished.

RESULTS: A significantly higher EPDRS score (by 45%), indicating severity of depressive symptoms, was found on the 3rd day after childbirth compared with the 30th postpartum day. Moreover, the early post-delivery period (3rd day) was characterized by a 24% lower serum zinc concentration than that found on the 30th day after childbirth. BDI scores assessed a month before childbirth revealed mild depressive symptoms, which was accompanied by a serum zinc concentration similar to that found on the 3rd day after delivery. No significant alterations were found in the magnesium levels between these time points.

CONCLUSION: The present results demonstrated a relationship between severity of depressive symptoms and decreased serum zinc (but not magnesium) concentration in a very specific type of affective disorder, the postpartum depression.

PMID: 16963806

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