

Abstract

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Effect of supplementation with selenium on postpartum depression: a randomized double-blind placebo-controlled trial.

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OBJECTIVE: Postpartum depression is a common complication of childbirth, and its prevention is an important public-health issue because of its negative effects on mother, infant, and family. The present randomized, double-blind, placebo-controlled trial was conducted to examine the effect of prenatal selenium supplementation on the postpartum depression level in Iranian women.

DESIGN: A total of 166 primigravid pregnant women in the first trimester of pregnancy, were randomized to receive 100 µg of selenium (n = 83) or a placebo (n = 83) per day until delivery. The symptoms of postpartum depression were evaluated during the eight weeks following delivery by means of the Edinburgh Postnatal Depression Scale (EPDS). Serum selenium concentrations were measured at baseline and at the end of study.

RESULTS: There was no significant difference in demographic characteristics and perceived social support between the selenium and control groups at baseline ($p > 0.05$). There were 22 drop-outs in the selenium-supplemented group and 19 in the placebo group. Forty-four women in the selenium group and 41 women in the placebo group completed the trial and the EPDS questionnaire. Selenium supplementation was associated with a significant increase in mean serum selenium concentration at term ($p < 0.001$) but remained unchanged in the control group. The mean EPDS score in the selenium group was significantly lower than that of the control group ($p < 0.05$).

CONCLUSION: These findings suggest that supplementation with selenium during pregnancy might be an effective approach for the prevention of postpartum depression.

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