
Module 2: Depression During Postpartum and Breastfeeding

Does Vitamin B6 Prevent Postpartum Depression?

Research Update

Mood Disorders in Pregnancy, Postpartum, and Breastfeeding: A Carlat Review Course

 CARLAT PUBLISHING
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Brian Miller, MD, PhD, MPH.

Dr. Miller, author for this educational activity, has no relevant financial relationship(s) with ineligible companies to disclose.

REVIEW OF: [Khodadad M et al, Int J Prev Med 2021;12:136](#)

STUDY TYPE: Single-blind placebo-controlled trial

Postpartum depression (PPD) is common, occurring in about one in eight women and adversely affecting children and families. Treatments are limited, but some lines of evidence hint at a potential role for vitamin B6. For example, vitamin B6 levels naturally decrease during the second and third trimesters of pregnancy, and vitamin B6 has shown potential in the treatment of premenstrual dysphoric disorder. This study tested the treatment in the third trimester for women at risk of PPD.

This randomized, single-blind trial tested vitamin B6 versus placebo in 86 pregnant women in Iran in their third trimester. The women had at least one risk factor for PPD (including history of a psychiatric disorder, antenatal anxiety or depression, unplanned pregnancy, lack of social support, marital stress, and recent stressful life events), but did not have a level of depression or anxiety that required treatment. Patients were evenly randomized to either B6 (80 mg/day) or placebo from the 28th week until delivery, and then a lower dose of B6 (40 mg/day) or placebo for one month after delivery. Depression was assessed at baseline and one and a half months after delivery with the Edinburgh Postnatal Depression Scale (EPDS). The majority of participants (94%) completed the trial. The patients did not know whether they were receiving placebo or B6, but the researchers and symptom raters were aware of treatment assignment.

The B6 and placebo groups were well matched with respect to participant's age, husband's age, BMI, education, employment, pregnancy and mental health histories, and baseline EPDS score. The mean EPDS score decreased significantly in the B6 group (from 10.1 to 4.2, where ≥ 13 is the cutoff for depression), whereas there was a nonsignificant increase in mean EPDS scores in the placebo group (from 9.3 to 10.4).

Limitations include the lack of significant anxiety or depression in the subjects and the lack of blinding in the raters. Also, the study did not control for the exact duration of B6 therapy (based

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on delivery date), dietary B6 intake, blood levels of the active metabolite of B6, and physical activity. Vitamin B6 is considered safe in pregnancy and has an FDA rating of category A.

CARLAT TAKE

While vitamin B6 is safe in pregnancy and may reduce the risk of PPD, the limitations of this study call for further research.