

The effect of Vitamin D supplementation among antenatal women with Gestational diabetes mellitus with Vitamin D deficiency: A Randomised Controlled Trial

SUPRIYA KUMARI¹, Saubhagya Jena¹, Sweta singh¹, Manaswini Mangaraj¹, and Gautom saharia¹

¹AIIMS Bhubaneswar

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Abstract

Objective This study aimed to assess the effectiveness of high dose vitamin D as compared to that of standard dose in women with GDM having vitamin D deficiency. **Design** Randomized controlled trial **Setting** This study was conducted at the Department of Obstetrics & Gynecology, All India Institute of Medical Sciences, (AIIMS) Bhubaneswar. **Population or sample** 76 women with GDM having vitamin D deficiency were included in this study. **Methods** Participants were randomly recruited in intervention and control group. Participants of the intervention group were provided with 60,000 IU of vitamin D every two weeks (upto a maximum of ten doses) and participants of the control group were provided with standard dose of vitamin D (500 IU/day). All the participants were assessed for glycemic control and perinatal outcomes. **Main outcome measures** Perinatal outcomes, blood sugar levels and change in insulin requirement between the two groups. **Results** Among 68 participants, mean difference of 1.06 mg/dl and 1.48 mg/dl was observed for fasting and post-prandial blood glucose levels. Mean insulin requirement increased by 5 units in control group during pregnancy, whereas it was reduced by 1.1 unit in intervention group. Poor perinatal outcome was observed among 65.2% of the participants and 34.8% amongst the participants in the intervention group. **Conclusion** High dose of vitamin D supplementation is useful for better glycemic control and preventing poor perinatal outcome among GDM women with vitamin D deficiency. Routine Vitamin D testing and high dose supplementation in antenatal women with proven Vitamin D deficiency should be considered.

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