

Effect of vitamin d supplementation for obese pregnant women on gestational diabetes and diabetes biomarkers

Faten Tamim

Department of Nutrition and Food Processing, Faculty of Agriculture, University of Jordan, Jordan.

Abstract

High rates of vitamin D deficiency in Jordan are alarming especially when they are associated with obesity during pregnancy. **Objectives:** To investigate the effect of vitamin D supplementation for obese pregnant women on gestational diabetes and diabetes biomarkers. **Methods:** 118 women were investigated and were divided into three groups. Each group was divided into two treatment subgroups. (1) Women (n=23) with normal 25(OH)D levels were given either no supplementation (1A=12) or given vitamin D supplementation of 10000 IU/wk (1B=11), (2) women (n=43) with insufficient 25(OH)D levels were given either 10000 IU/wk (2A= 22) or 20000 IU/wk of vitamin D supplementation (2B=21), (3) women of group 3 (n=52) with deficient 25(OH)D levels were given either 20000 IU/wk (3A=26) or 50000 IU/wk (3B=26) of vitamin D supplementation. **Results:** Fasting blood sugar showed decreased levels among B treatment subgroups in both group 1 and 3, while no significant difference was found between A and B treatment subgroups in group 2. Insulin resistance showed a significant difference between A and B treatment subgroups among group 2 and 3 but not group 1.

Conclusion: Screening for 25(OH)D during pregnancy and appropriate replacement, especially in patients with severe deficiency, may contribute to the prevention of gestational diabetes mellitus.



Biography:

Fatem Tamim currently working as professor in University of Jordan in the department of nutrition and food processing.



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