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# Vitamin D and pregnancy debate & update

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Background: There was a continuous argument regarding the impact of Vitamin D deficiency in pregnancy and the adverse maternal and fetal outcomes. Some demonstrated harmful effects of hypovitaminosis D while other denied association of deficiency and fetomaternal outcome.

Aim of work: To assess the correlation of serum Vit D level and different pregnancy fetomaternal complications and assess whether feto-maternal morbidities are associated with hypovitaminosis D or not.

Patients and Methods: 322 participants who meted the inclusion criterias were classified into 2 groups. The first one was 110 pregnant with normal pregnancy regarding both fetal and maternal conditions were selected as control group. The second one was 212 pregnant suffering from pregnancy complications and were further subdivided into,58 cases with severe preeclampsia toxemia associated with intrauterine growth restriction, 82 case with GDM, 26 cases of abortion, 16 cases undisturbed ectopic pregnancy,14 case with premature rupture of membranes=PROM and 16 cases with inevitable preterm labor. Serum recovered from peripheral blood samples by centrifugation was aliquot stored until used at -80 oC. Specific quantitative ELISA immunoassay kits from Sunlong Biotech Co. Ltd. were used to measure 25-OH-VitD (in ng/mL) and 1, 25-DiOH-VitD (in pg/mL) (cat# SL2762Hu and SL2845Hu, Hangzhou, Zhejiang, China). The direct DiOH-VitD/OH-VitD ratio was calculated for each patient.

**Results:** .25 -OH -Vit D showed significant differences only between control and GDM groups while there were no significant differences among control and other groups. On the other hand, 1, 25-DiOH-VitD assay showed very marked significant reductions in comparing control versus all of 6 complicated groups. Very similar to 1, 25-DiOH-VitD pattern, DiOH-VitD/OH-VitD ratio showed no significant difference among the complicated groups. However, there were very marked significant reductions comparing control vs. all of the 6 complicated groups

**Conclusions:** There is a strong association of vit D status and certain pregnancy complications.1, 25 Di-OH-Vit D assay seems to be more reliable than 25-OH-Vit D and could be used as a suitable biomarker in assessment of vit D status in pregnancy. Vit D supplementation during pregnancy may assist in reducing related complications.

### **Biography**

Ibrahim A. Albahlol, an esteemed associate professor affiliated with Jouf University and Mansoura University, has made significant contributions to the field of obstetrics and gynecology. His research, cited over 182 times, delves deep into the intricacies of reproductive health. One of his most influential works, published in Human Reproduction in 2011, investigates the optimal timing of intrauterine insemination, a study that has garnered attention with 41 citations. In 2021, Albahlol explored the protective effects of Resveratrol against ovarian and uterine toxicity, a groundbreaking study cited 31 times. His expertise also extends to polycystic ovary syndrome (PCOS), as evidenced by his 2013 publication that has been cited 28 times. Albahlol's commitment to women's health is further highlighted by his 2020 research on contraceptive use barriers in Saudi Arabia. Additionally, his 2016 publication in the Middle East Fertility Society Journal, which delves into the complexities of embryo transfer, has been cited 15 times. Albahlol's dedication to advancing reproductive health research solidifies his position as a leading figure in the field.