LETTER TO EDITOR

Vitamin D Deficiency in Pakistani Pregnant Women — dispelling the False Sense of Protection

Vitamin D is an essential micronutrient & a secosteroid hormone important for maintaining health & preventing disease. There is increasing evidence for its implication in a variety of diseases. Its actions are mediated through its receptors which bind with its active metabolite 1,25 dihydroxy cholecalciferol (1,25 [OH]2 vit D). Its functions in calcium & bone metabolism are well known. Currently there is increasing recognition of its non classical functions in a variety of cell types. These include modulation of innate & adaptive immune responses. It acts as a disease modifier in a variety of chronic diseases which include osteomalacia, rickets, diabetes, multiple sclerosis, schizophrenia, heart disease, & cancer. Mother is the major source of 25 hydroxy cholecalciferol, first precursor of the active form 1,25 [OH]2 vit D. Mother’s status is the determining factor for neonatal 25 [OH]2 levels & thus influences their risk of developing deficiency states & infantile rickets. International studies have discovered that despite abundant sunshine vitamin D deficiency is common in pregnant women ranging from 65% to 87%. This deficiency is not confined to veiled women or those with dark skins. A current study from Karachi reported 89% of parturient mothers being vitamin D deficient with 45% being severely deficient <=10ng/ml. The same also showed inverse correlation between maternal 25 hydroxy vitamin D3 levels & maternal mean arterial blood pressure pointing to the risk of hypertensive disorders in pregnant women deficient in vitamin D. Another study from Karachi with 50 participants, revealed deficiency level <25ng/ml in 46% pregnant women whereas its insufficiency was observed in 32% of pregnant women. These facts point out that despite abundant sunshine our pregnant population is at high risk for vitamin D deficiency, making neonates vulnerable to be born with a deficient state. Vitamin D supplementation to study groups of mothers, in dosages described in a wide range from 2000 -64000 IU/day improve anti rachitic milk activity & infant vitamin D status. There is a need to conduct large scale studies to supplement these findings following which consideration should be given to devise national guideline for vitamin D supplementation to Pakistani pregnant women.

REFERENCES


