

DIETARY VITAMIN D INTAKE AMONG LACTATING MOTHERS AND ITS CORRELATION TO VITAMIN D STATUS OF THEIR OFFSPRING

Anusha, K¹, Liyanage, G.S.H.², Hettiaratchi, U.P.K.¹

1. Department of Biochemistry, Faculty of Medical Sciences, University of Sri Jayewardenepura
2. Department of Paediatrics, Faculty of Medical Sciences, University of Sri Jayewardenepura

Introduction: Daily requirement of vitamin D during lactation is controversial. However, Institute of Medicine (IOM) task force recommends safe level of 4000 IU/day of vitamin D through diet. Vitamin D occurs naturally in oily fish, egg yolk and fortified milk/milk products. Most of these food items are less affordable to majority in Sri Lanka. Vitamin D supplementation is not routinely done in state sector clinics in Sri Lanka.

Aim/s: To assess adequacy of vitamin D intake through diet among a selected population of pregnant mothers and its correlation to vitamin D level of the infant.

Methods: Lactating women of 4-6 weeks of postpartum (n=102) were interviewed. Vitamin D levels of food items were calculated using validated software (Nutrisurvey). Weekly intake of vitamin D was assessed and average consumption/day was calculated. Serum vitamin D levels of the infant were analysed using mini VIDAS and Parathyroid hormone (PTH) using DRG ELISA kits. Vitamin D (25(OH)D) deficiency was defined as <10 ng/mL. Data were analysed using SPSS version 15.0.

Results: Majority (98%) of infants were exclusively breastfed. Vitamin D deficiency was high (63.1%) among the infants. 25.2% had insufficiency (10-20ng/mL). The total intake of vitamin D from diet was 1297.4±1264.9 IU/day (range 32-5400). Main source of their vitamin D in this population was fortified milk powder and small fish. Vitamin D level in the infant correlated significantly with mother's vitamin D intake in the diet. (r=0.204, p=0.039).

Conclusion: Vitamin D deficiency/insufficiency in infants is high. Mother's vitamin D intake, which is the only source of vitamin for the infant, is not adequate. Thus, we suggest vitamin D supplementation during lactation in state sector clinics in Sri Lanka. Further, larger randomized controlled trials are needed to investigate safe dose of supplementation.

Email of the Corresponding Author: guwanil@yahoo.co.uk