7th Asia Pacific Conference on Clinical Nutrition 2011

Bangkok, Thailand

5-9 Jun 2011

Dr. Sakinah Harith
Pusat Pengajian Sains Kesihatan

7th Asia Pacific Conference on Clinical Nutrition

APCCN2011

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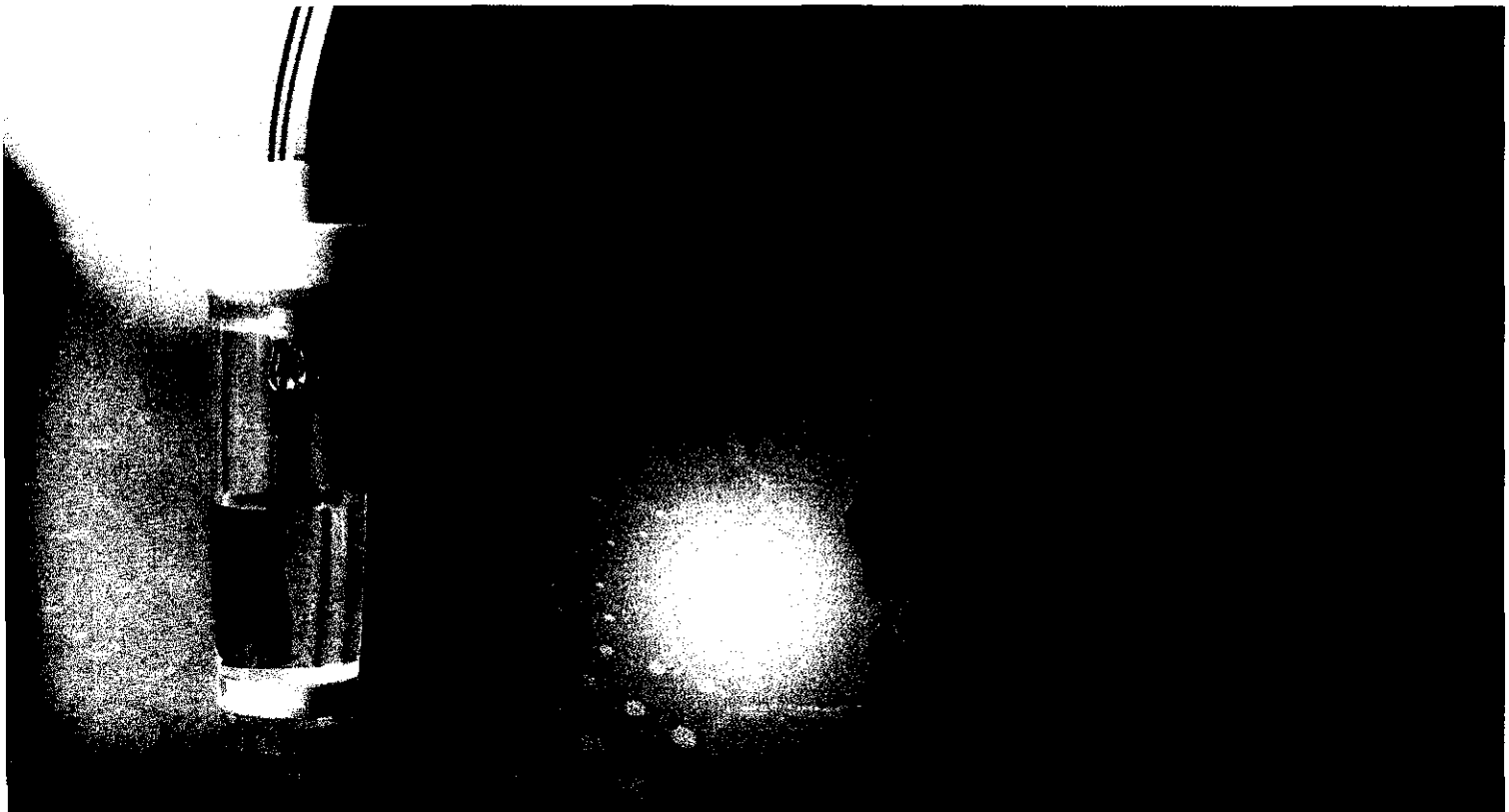

Optimizing clinical nutrition in adult/pediatrics and dietary supplements/vegetarianism

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CONGRESS PROGRAM

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CALCIUM AND VITAMIN D STATUS OF MALAY WOMEN FROM LOW INCOME FAMILY: A POPULATION-BASED STUDY

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Calcium and vitamin D were known to be essential for the growth of bones, thus, appropriate intake of calcium and vitamin D are crucial to prevent osteoporosis and any other skeletal defects. Nutrient intake varies among population and social status due to the differences in food choices. Our objective is to determine the calcium and vitamin D status of Malay women from low income family in Kelantan. Calcium and vitamin D status were determined in healthy 150 (51 pre and 99 postmenopausal) Kelantanese Malay women. Calcium intake was determined by diet recall and food frequency questionnaire, while vitamin D based on serum levels of 25-hydroxyvitamin D (25 (OH) D) using ELISA kits . The data showed that the mean calcium intake was 492.9±316.51 mg/day where 86.3% of the premenopausal and 91.9% of the postmenopausal subjects have calcium intakes lower than the recommended daily intake for Malaysian women (800 mg/day and 1000mg/day respectively). The intake of calcium was affected by education level and working status ($P< 0.05$). Whilst for vitamin D, the mean is 43.4 ± 7.01 nmol/L. None of the subjects have sufficient serum vitamin D level (>100 nmol/L), 16.4% have lowered serum 25-OH vitamin D level (defined as Hypovitaminosis D, 50-100 nmol/L), majority (82.9%) have deficient level of serum 25-OH D (25-50 nmol/L). The other 0.7% falls under seriously deficient level of vitamin D (< 25 nmol/L). Vitamin D intake showed significant correlation with education level, BMI and smoking status ($P< 0.05$). These findings, which showed that majority of the subjects have low calcium and vitamin D status is a concern as it will lead to public health problems, especially osteoporosis. Strategy needs to be developed in combating this problem in the lower income populations. Calcium with vitamin D supplementation in the selected high risk groups might be a cost-effective preventative measure.