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**Serum Vitamin D in a Malaysian Sub-Population: A Preliminary Glimpse**

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**ABSTRACT**

In the recent years, many have reported an association between vitamin D insufficiencies with increased risk for a wide range of health problems. It has reached epidemic proportion that the insufficiency is related to certain lifestyle factors in adults. This study sought to determine the prevalence of vitamin D insufficiency and identify the risk factors in Malaysian adult population in Klang Valley. This cross-sectional study involved 220 men and 344 women aged 35-75 years who participated in The Malaysian Cohort Project. The levels of serum 25-hydroxyvitamin-D [25(OH)D] were measured by using Ultra Performance Liquid Chromatography (UPLC) at wavelength 265 nm following a liquid-liquid extraction and separation on a C-18 column. Vitamin D insufficiency was defined as serum 25(OH)D levels below 50 nmol/L. Other parameters were measured according to the standard protocol by The Malaysian Cohort Project. Chi-Square test was performed to explore the relationship between vitamin D levels with various categorical variables. Vitamin D insufficiency was present in 46.1% of the study population. The prevalence was higher in women (57%) than in men (29.1%; p<0.001). Multiple logistic regression analysis revealed that female gender and Chinese ethnicity as the significant predictors for vitamin D insufficiency (p<0.001). No significant association of vitamin D insufficiency with menopausal status in women, age group of above 50 years old, bone mineral density (BMD), obesity, hypercholesterolemia, hypertension and diabetes mellitus. Further study is currently on going to explore more associations of the other variables with serum vitamin D level in this population.