The Effect of Food Supplementation On Nutritional Status of School Children in Solok City

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ABSTRACT

INTRODUCTION: Food supplementation is one of the national programs to improve the nutritional status in Indonesia. This study aims to determine the effect of food supplementation on the nutritional status of elementary school children in Solok, West Sumatra. **METHODS:** This research was an experimental study with pre and post-test design. The samples were 70 elementary students, 10-12 years old. Food supplement was given 30 times with an average nutritional value of 335 kcal of energy and 9.6 grams of protein. Bivariate analysis using the T-test-One Sample Test. **RESULTS:** Food supplement was given for 30 times, six times a week. There was an increase in normal nutritional status from 74.7% to 84.3% and there was a decrease in underweight cases from 24,3% to 15.7%. Statistical tests obtained that there are differences in nutritional status after the administration of food supplement ($p<0.0001$). **DISCUSSION:** There is an influence of food supplementation on nutritional status in elementary school students in Solok city. Feeding counseling is needed to improve the acceptability of the food supplement.

KEYWORDS: Food supplement, School, Children, Nutritional Status

The Effect of Occupational Pesticides Exposure On Ankle Brachial Index Among Paddy Farmers in Northwest Selangor, Malaysia

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ABSTRACT

INTRODUCTION: Peripheral arterial disease (PAD) is a systemic atherosclerosis and is associated with increased cardiovascular morbidity and mortality. As chronic pesticides exposure may potentiate the risk of atherosclerosis, this study examined the relationship between occupational pesticides exposure and the development of PAD among paddy farmers. **METHODS:** A total of 193 paddy farmers who had direct exposure to pesticides and 196 inhabitants who were not directly exposed to pesticides in Northwest Selangor were examined for ABI, blood glucose and lipid profile. Information on pesticides usage and work practice were obtained using a validated questionnaire. **RESULTS:** The mean ABI of this study population was 1.21 (SD 0.17). There were 3.1% (95%CI 1.5, 5.1) and 15.4% (95%CI 12.1, 19.0) subjects with low and high ABI respectively. There was significant difference in the ABI reading between directly exposed group and non-directly exposed group ($p<0.001$). After controlling for confounders in multiple logistic regression model, those with low ABI were more likely to have older age (OR 1.06), higher glucose (OR 2.51), lower HDL-cholesterol (OR 2.34), and higher cumulative exposure to Chlorpyrifos (OR 2.15). While respondents with high ABI have longer duration of working in paddy fields (OR1.07), higher triglycerides (OR 1.65), higher cumulative exposure to Methomyl (OR 2.17) and Paraquat (OR 2.13). **DISCUSSION:** Apart from traditional vascular risk factors, chronic exposure to pesticides may contribute to an increase risk of PAD. Early identification of pesticides exposure levels and early PAD detection are useful in populations that are more susceptible to adverse effects of pesticides.

KEYWORDS: ABI, pesticide, paddy farmer, Northwest Selangor