

5th International Conference and Exhibition on

Occupational Health & Safety

June 06-07, 2016 Dallas, USA

Dealing with occupational hazards amongst farmers of Wakiso district in Uganda

Nabankema Victoria
UNACOH, Uganda

Uganda has a population of about 35 million people with a growth rate of about 3.4% per annum and projected to be about 47.4 million by 2025. The agriculture sector continues to be key in country's efforts to live up to the ever increasing demand for food although it is adversely hindered by the pests and diseases in crops. This has necessitated farmers to use pesticides so that they can increase food production for both trade and family sustainability. According to the recent study done by UNACOH in 2014, WHO class II pesticides were commonly used in Uganda though even class 1 pesticides such as Diazinon and Dichlorvos were used. Although developing countries use only 25% of the pesticides produced worldwide, they experience 99% of the deaths because farmers have limited knowledge on proper use of these pesticides hence stand a risk of acute poisonings, chronic effects such as neurotoxicity, reproductive effects, and cancer. Although importation and abundant availability of pesticides for use in Uganda has improved crop production, studies have documented extensive misuse of pesticides amongst smallholder farmers. Poor pesticide handling practices such as, poor spraying practices and techniques (eating while spraying, alcohol drinking, smoking, drug abuse, mixing different pesticides together ('cocktail pesticides'), not using protective equipment/wear, unblocking spray nozzle with mouth, poor storage and transportation of pesticides were found to be common. According to studies done by UNACOH, over 75% of the farmers do not use personal protective wear when handling and using pesticides. These practices expose farmers to pesticides and the resultant illnesses, increased health expenses, lost farm labor, and the long term health effects. UNACOH has been undertaking the Pesticide Use, Health and Environment project that aims at reducing the negative health and environmental effects of pesticide use to deal with the occupational hazards in spraying.

victorianabankema@gmail.com

Blood cadmium is associated with osteoporosis in obese males but not in non-obese males: the Korea National Health and Nutrition Examination Survey 2008-2011

Won-Jun Choia, Sang-Hwan Hana and Soyoung Hongb

^aDepartment of Occupational and Environmental Medicine, Gachon University Gil Medical Center, Incheon, Korea

^bDepartment of Environmental Health Research, Seoul Medical Center, Seoul, Korea

Osteoporosis in males is becoming an important health concern in an aging society. The aim of this study was to investigate the associations between cadmium exposure and osteoporosis by considering the effect of obesity in aged males using a representative sample of the Korean population. Using the fourth and fifth Korea National Health and Nutrition Examination Survey data, 1,098 males over 50 years of age were analyzed. The blood cadmium concentration was measured. The bone mineral density in the total hip, femur neck and lumbar spine was measured using dual energy X-ray absorptiometry. T-scores to determine the presence of osteoporosis were calculated using a Korean reference. Subjects were stratified into two groups according to obesity status (body mass index <25 kg/m² and ≥25 kg/m²). In comparison with obese subjects with blood cadmium <1.00 µg/L, those with blood cadmium >1.50 µg/L had odds ratios of 4.57 (95% confidence interval [CI] 1.49-14.01) and 5.71 (95% CI 1.99-16.38) at the femur neck and any site, respectively, after adjusting for potential confounders such as age, serum creatinine, vitamin D deficiency, smoking, alcohol drinking and physical activity level. However, this association was not significant in non-obese males. In conclusion, the effect of cadmium on osteoporosis was different by obesity status in aged males.

wjchoi@gachon.ac.kr