

FACTORS ASSOCIATED WITH TYPE 2 DIABETES MELLITUS AMONG THE ELDERLY HILL TRIBE POPULATION IN THAILAND

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Abstract. Type 2 diabetes mellitus (T2DM) is a common chronic disease among the elderly and a major public health problem in Thailand. There are many risk factors for developing T2DM but little data is available about these factors among the elderly hill tribe population in Thailand. Therefore, we aimed to determine the prevalence of these risk factors among this population in Chiang Rai Province, Thailand. We conducted an analytic cross-sectional survey among hill tribe subjects aged ≥ 60 years in Chiang Rai Province. Each subject was asked to complete a questionnaire. A physical health examination was done by a physician, and 5 ml blood specimen was drawn and examined for lipid profile and fasting glucose level. Logistic regression analysis was used to detect associations between variables and the presence of diabetes. A total of 793 subjects from 61 vilages were recruited into the study. Fifty-one point seven percent were aged 60-69 years (mean=70, SD=7.57), 49.6% were males, 71.5% were Buddhists, and 6.1% had no Thai identification card. After controlling for confounding factors, four variables were significantly associated with T2DM: a) being a member of some hill tribes: Lahu, Yao, Karen, and Lisu had a 3.00 times (95%CI: 1.37-6.63), 3.19 times (95%CI: 1.45-6.99), 4.75 times (95%CI: 2.22-10.15), and 2.71 times (95%CI: 1.22-6.03), respectively greater risk of having T2DM than members of the Akha tribe; b) those who exercised regularly had a 2.46 times (95%CI: 1.31-4.57) greater risk of having T2DM than those who did not; c) those who had hypertension ($OR_{adj}=1.93$, 95%CI: 1.29-2.91) had a 2.08 times (95%CI:1.31-4.57) greater risk of having T2DM than those who did not; d) and those who had an elevated triglyceride level >200 mg/dl had a 1.99 times (95%CI:1.27-3.11) greater risk of having T2DM than those who had a triglyceride level <200 mg/dl. These data can inform diabetes prevention programs among the study population, which are needed.

Keywords: type 2 diabetes mellitus, elderly, hill tribe, Thailand

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