



Alternative Medicinal Plants to Treat Hypertension Based on Ethnomedicinal Knowledge of Karen Healers in Chiang Mai, Thailand

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Abstract

Globally, nearly 10 million people died of hypertension, and such number tends to increase. Due to the adverse effects of antihypertensive drugs and intolerance to them including limitations on cost, ethnomedicine should be explored to provide alternative options. The Karen is the largest ethnic minority in Thailand who live closely with the forest. So far, the lifestyle of Karen has relied on natural resources such as medicinal plants used to relieve their illnesses. This paper aimed (1) to explore the traditional knowledge of hypertension treatment and (2) to survey the medicinal plants the Karen in Chiang Mai, Thailand, used for treating hypertension. A semi-structured interview was conducted with six Karen healers from three districts. The field surveys and plant collection were done at the home gardens, farms, and forests. The degree of agreement about the disease causation, plant species, and practical use was evaluated with the frequency of citation index among the informants. From the interviews, most of healers recommended that diseases were caused by the disorder of water and wind elements in the body (60%). It was found that the Karen healers used a total of 52 species of medicinal plants were used for treating hypertension. *Blumea balsamifera* as a medicinal plant was often recommended by the healers with the highest frequency of citation among of all medicinal plants (FC = 3, n = 6). Leaves were the most favorite part (80%) while the most favorite preparation method was the decoction (85%). Moreover, the oral ingestion was the most common form (60%) of administration for medicinal plants. This research suggested alternative medicine for hypertension in which medicinal plants were traditionally used by the Karen in Chiang Mai, Thailand. The traditional knowledge about medicinal plants used by the Karen healers might help in the reduction of blood pressure. A number of plants from our research was supported from the previous biological activities data about the treatment of hypertension. However, the pharmacological study should be further analyzed to confirm their efficacy and safety.

Keywords: *high blood pressure, traditional knowledge, medicinal plants, Karen*
