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DOWRAUNG WIMOLRATANAN: THE EPIDEMIOLOGY OF RISK FACTORS RELATED TO SEVERE AND COMPLICATED FALCIPARUM MALARIA IN EASTERN THAILAND. THESIS ADVISORS: WICHAI TECHASATHIT, M.Sc., VICHAI RUNGPITARUNGSI, M.Sc. (Med. Demog.), KRONGTHONG THIMASARN, M.P.H.& T.M. 84 P. ISBN 974-665-106-4

The comparative study was conducted between May 1999 and March 2000 to identify risk factors related to severe and complicated falciparum malaria. Interviews with the adult patients with a primary diagnosis of falciparum malaria admitted to 13 hospitals in the Eastern Region of Thailand, which include Chantaburi, Trat, and Srakaeo, were deployed as the primary data collection method. The 308 interviewees can be categorized in two study groups: the group of patients who had severe and complicated falciparum malaria (69 patients, 22.4% of total interviewees) and the group of patients who had uncomplicated malaria (239 patients, 77.6% of total interviewees).

The results of this study indicated that the risk factors statistically related to severe and complicated falciparum malaria include distance from home to hospital, traveling time from home to hospital, traveling costs from home to hospital, previous history of traveling into the forest during the last two weeks, and delay in seeking medical attention from hospital. The study showed that study group 1 had a longer distance from home to hospital than study group 2 (RR = 2.40, 95%CI = 1.59-3.63, p value = 4.06×10^{-5}). Study group 1 also had longer traveling time from home to hospital than study group 2 (RR = 1.72, 95%CI = 1.14-2.59, p value = 0.014). In addition, the traveling costs from home to hospital of study group 1 were greater than the same costs of study group 2 (RR = 2.25, 95%CI = 1.49-3.40, p value = 4.912×10^{-4}). Moreover, the previous history of traveling into the forest during the last two weeks, and the delay in seeking medical attention from hospital have more significant relationship in study group 1 than in study group 2 (RR = 2.25, 95%CI = 1.49-3.40, p value = 4.912×10^{-4} , and RR = 2.54, 95%CI = 1.66-3.89, p value = 1.67×10^{-5} , respectively).

The results of this study also revealed that gender, age, occupation, educational level, total monthly income, transportation to hospital, prior history of malaria, years of residence, knowledge of malaria, perception of susceptibility and severity of malaria, commencement of seeking medical attention, as well as antimalarial treatment prior to hospital admission have no significant statistical relationship with the severe and complicated falciparum malaria.

As a result of this study, it is recommended that health education should be implemented for patients to safeguard against disease, to become aware of danger signs, and to be referred to medical services for severe illness.