ABSTRACT

Malaria is leading cause of morbidity and mortality and one of the priority diseases in Myanmar. Although it was seriously emphasized on malaria control program, malaria is now re-emerging. Uncontrolled population migration is one of the causes of re-emerging malaria. To determine the risk factors associated with malaria infection among the migrant population, a case-control study was conducted among migrant workers with the age ranging of 15-65 years old, excluding dependents, of Yuzana palm oil plantation in Kaw Thaung at Tanintharyi Division and made confined period of migration was at least two weeks and not more than 30 months to the study area. Out of 750 eligible migrant workers tested by RDT (Omega) that can detect both P. falciparum and P.vivax malaria, total 105 were positive. The positivity of RDT results was 14% in the study period and the major problem was P.vivax. For case-control study, 103 cases and 206 controls were interviewed by pretested questionnaires. Among them, 15-24 years age group represented the largest group and about 70% of malaria cases were male and 90% were Bamar. The statistical analysis was carried out by the chi-square test and multivariable logistic regression: a p-value of less than 0.05 was considered to be statistically significant. The socio-demographic characteristics, occupational related exposures of malaria, knowledge and attitudes of malaria were not found to be significant risk factors for malaria infection in this study after adjusting the potential confounders. In logistic regression analysis, after controlling for possible confounding factors, this study revealed that irregular and never use of the personal protection from mosquito bite in the plantation, increased the risk of malaria infection by a factor of 2.45 (95%CI: 1.09-5.46, p=0.028)and2.73(95% CI : 1.29-5.72,p =0.009) respectively. There were increased risk of malaria infection among those who irregular slept under mosquito net (OR=2.93, 95% CI: 1.34-6.39, p=0.007) and those who had history of malaria attack within last six months (OR=11.36, 95% CI: 4.17- 30.99, p=0.000). Other variables had risk for malaria infection but were not statistically significant. In this study, treatment seeking behavior and accessibility of health care facilities were not found to be significant risk factors of malaria infection.