

Monitoring of *Plasmodium vivax* infection in selected townships

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Abstract

Plasmodium falciparum and *plasmodium vivax* are malaria parasites commonly infecting the human. Even as *Plasmodium vivax* potentially affects a large number of people like *Plasmodium falciparum*, it receives a small fraction of the result attention. In order to monitor the *plasmodium vivax* infection, the community based cross-sectional descriptive study was conducted in two malaria endemic areas, Naung Cho Township (Northern Shan State) and Pyin Oo Lwin Township (Mandalay Region). It was done during June 2014 and February 2015. The study population consisted of people with suspected malaria with any age and sex residing in studied areas. Blood examination for malaria species identification was conducted using both microscopic and Rapid Diagnostic Testing. Total of 434 malaria suspected cases were include into the study. Mean age of participants was 29±16.3 in year. The youngest was 1 and eldest was 75 years old. Male were 292 (67.3%) and female were 142 (32.7%). *P.vivax* infections were examined in 72 (16.6%) participants and *P.falciparum* infections were observed in 36(8.3%) participants. Mixed infection with both *P.vivax* and *P.falciparum* were examined in 10(2.3%) people. According to bi-variate analysis with Chi square test, male were more probable to be infected with *P.vivax* infection than female (OR=3.6, 95%CI=1.765-7.15). Twenty years and above aged participants were also more probable to be infected with *P.vivax* infection than younger population (OR= 2.1, 95%CI=1.070-4.005). Prevention and control activity should be also emphasized on *P.vivax* infection as its prevalence was relatively increasing compared to *P.falciparum* infection in study areas.