

ABSTRACT

Risk Factors of *Plasmodium falciparum* Infection in Malarial Endemic Areas in Penajam Paser Utara District, East Kalimantan, Indonesia

Malaria is still remained a public health problem In Penajam Paser Utara district, East Kalimantan Province, Indonesia. The aim of study was to analyze the risk factors including knowledge, attitude, practice of malaria prevention and environment to *Plasmodium falciparum* infection at malarial endemic areas in Penajam Paser Utara District. A cross-sectional study was conducted from April to June 2015. Sixty-one symptomatic malarial patients were recruited by informed consent and willing to participate to be interviewed. In total 38 patients were diagnosed to suffer from malaria *falciparum* or non *falciparum* by confirmed diagnosis of microscopy. Their interview data was analyzed by SPSS. Most malarial patients were over 10 year old (97.4%, 37/38), man (86.8%, 33/38), living at forest areas (52.6%, 20/38), and dominantly infected with *P. falciparum* (55.3%, 21/38). Most malaria *falciparum* patients were farming (90.5%, 19/21), and had a low knowledge (90.5%, 19/21), an inappropriate attitude and practice to malarial prevention, 57.1% (12/21) and 95.2% (20/21) respectively. Whereas, their occupational as farming and inappropriate practice to malarial prevention showed a risk to suffer from malaria *falciparum* ($PR = 1,12$ and $PR = 1,72$ respectively) suggesting that they did not do malarial prevention to avoid mosquito biting during working at farm at night. Thus, the risk factor of malaria *falciparum* at malaria endemic areas in Penajam Paser Utara of district were farming occupation and inappropriate practice to malaria prevention. It is necessary to conduct health education of malaria and its prevention and insecticide bed-nets distribution to people who are living at farm or forest areas.

Keywords: Risk Factors, *Plasmodium falciparum* infection, Penajam Paser Utara district, East Kalimantan, Indonesia