

ABSTRACT

A comparative field trial of the efficacy of mefloquine alone and in sequential combination with artesunate was studied in 274 adult Thai and Karen patients with uncomplicated falciparum malaria in Suan Phung District, Ratchaburi Province during 1995-1998. The patients were randomly assigned into three groups. Group A with 91 patients received mefloquine alone (750 mg single dose); Group B with 93 patients received 300 mg initial dose of artesunate followed by 750 mg of mefloquine at 1 hr followed by 300 mg of artesunate at 24 hr and Group C with 90 patients received 300 mg of artesunate followed by 750 mg of mefloquine at 24 hr. All patients were followed for 28 days on days 7, 14, 21 and 28 to assess efficacy and tolerability. Two hundred and forty five patients completed the study; 29 patients left prior to completion of follow-up for reasons unrelated to treatment. Patients who failed to response to treatment were treated with quinine sulphate 600 mg 8 hourly and tetracycline 500 mg two times a day for 7 days plus primaquine 30 mg at the first dose.

Blood smears (thick and thin films) were obtained from fingerpricks, stained with Giemsa and parasite counts were done. Parasite density was determined by counting the number of parasites per 200 white blood cells in a thick film, and was expressed as the number of parasites per microliter of blood.

Data management and entry were done at the Department of Tropical Hygiene, Faculty of Tropical Medicine, Mahidol University. Normally distributed data for the three groups were compared using Analysis of Variance; proportional data

were compared using the chi-square test or Fisher exact test. *P*-value less than 0.05 was considered as significant.

Most patients responded well to the treatment regimens and none suffered from serious adverse reactions. The results of the study showed no significant difference in cure rates among the three regimens ($p > 0.05$). Cure rates for the three groups were 93.2% (82/88) for Group A; 93.2% (82/88) for Group B and 95.7% (66/69) for Group C. Four patients were positive with *P. vivax* on day 28.

The results of this study confirmed the efficacy of mefloquine in the treatment of uncomplicated falciparum malaria in this part of the country and alternate regimens are not needed at present time. Administration of 750 mg single dose of mefloquine is well tolerated with high compliance compared with multiple dose regimens. Therefore, at present there is no need for alternate regimen to treat the uncomplicated falciparum malaria in this part of the country. However, active surveillance for possible resistance to mefloquine in this area in the future should be regularly observed.