PHARMACOKINETICS OF MEFLOQUINE WITH DIHYDROARTEMISININ AS 2-DAY REGIMENS IN PATIENTS WITH UNCOMPLICATED FALCIPARUM MALARIA

Le Thi Diem Thuy[1,2], Le Ngoc Hung[1], Nguyen Canh Hung[3] and Kesara Na-Bangchang[2]

[1]Pharmacology and Toxicology Unit, Graduate Program in Biomedical Sciences, Faculty of Allied Health Sciences, Thammasat University, Pathum Thani, Thailand; [2]Cho Ray Hospital, Ho Chi Minh City, Vietnam; [3]Lam Dong II Hospital, Lam Dong, Vietnam

Abstract. The objective of this study was to investigate the pharmacokinetics of mefloquine (MQ) when given as 750 mg at two different times in combination regimens with dihydroartemisinin (DHA) in patients with acute uncomplicated falciparum malaria. A total of 12 Vietnamese patients (6 in each group) were randomized to receive two MQ-DHA regimens as follows: regimen-A: an initial oral dose of 300 mg DHA, followed by 750 mg MQ and 300 DHA 6 and 24 hours later; regimen-B: an initial dose of 300 mg DHA, followed by 300 mg DHA and 750 mg MQ at 24 hours. Both combination regimens were well tolerated. All patients responded well to treatment with no recrudescence during a 42 day follow-up period. The pharmacokinetics of MQ following both regimens were similar but pooled data from both groups suggest that the kinetics of MQ was different from that observed in Vietnamese healthy subjects reported in a previous study. The median (95% CI) time period for maintenance of whole blood MQ concentrations above 500 ng/ml was 16 (0-24) days. It was concluded that since no pharmacokinetic drug interaction was observed, MQ dose given 24 hours after an initial dose of DHA is a preferable combination treatment regimen with regard to patient compliance.

Correspondence: Professor Kesara Na-Bangchang, Graduate Program in Biomedical Sciences, Faculty of Allied Health Sciences, Thammasat University (Rangsit Campus), Pathum Thani 12121, Thailand.
E-mail: kesaratmu@yahoo.com