

Efficacy of oral single dose therapy with artemisinin - naphthoquine phosphate on uncomplicated falciparum malaria

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Different forms of artemisinin based combination therapy (ACT) combinations have been used in many countries since 2001. In Myanmar, the latest national antimalarial treatment policy was introduced in September 2002. ACT was recommended for treatment of uncomplicated falciparum malaria. The new generation ACT containing artemisinin plus naphthoquine is a single-dose antimalarial drug. A total of 55 uncomplicated *falciparum* malaria cases were tested with this drug during June to September 2007. A single dose of eight tablets (containing Artemisinin 125mg plus Naphthoquine 50mg in each tablet) was given orally. Average body temperature at the time of drug administration was 38.8 ± 0.7 degree Celsius. Average duration of illness was 3.2 ± 1.0 days. Geometric mean of plasmodium parasite count at day 0 was 12286 ± 14979 per μl . Out of total 55 cases, 2 cases were removed from study because of appearance of *Plasmodium vivax* on Day 28. 52 out of 53 cases achieved adequate clinical and parasitological response (ACPR). ACPR rate was 98.1%. In one case, *falciparum* parasite reappeared on day 14. Late parasitological failure (LPF) rate was 1.9% (n=1/53). Mean fever clearance time and parasite clearance time were 18.21 ± 6.15 and 34.6 ± 14.25 hours respectively. Apart from slight dizziness complained by two female patients, drug was well tolerated and no adverse reactions were found in remaining patients. The liver function tests including AST, ALT, total bilirubin, and alkaline phosphatase showed no significant changes during trial (between day 0 and day 14). New generation ACT containing artemisinin plus naphthoquine is found to be a single dose ACT with reliable efficacy, high cure rate and good tolerance.