RANDOMIZED TRIAL OF 3-DOSE REGIMENS OF TAFENOQUINE (WR238605) VERSUS LOW-DOSE PRIMAQUINE FOR PREVENTING *PLASMODIUM VIVAX* MALARIA RELAPSE

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Background: Tafenoquine is an 8-aminoquinoline developed as a more effective replacement for primaquine. In a previous dose-ranging study in Thailand, 3 tafenoquine regimens with total doses ranging from 500 mg to 3000 mg prevented relapse of *Plasmodium vivax* malaria in most patients when administered 2 days after receipt of a blood schizonticidal dose of chloroquine.

Methods: To improve convenience and to begin comparison of tafenoquine with primaquine, 80 patients with *P. vivax* infection were randomized to receive 1 of the following 5 treatments 1 day after receiving a blood schizonticidal dose of chloroquine: (A)tafenoquine, 300 mg per day for 7 days (n = 18); (B) tafenoquine, 600 mg per day for 3 days (n = 19); (C) tafenoquine, 600 mg as a single dose (n = 18); (D) no further treatment (n = 13); or (E) primaquine base, 15 mg per day for 14 days (n =12). The minimum duration of protocol follow-up was 8 weeks, with additional follow-up to 24 weeks.

Results: Forty-six of 55 tafenoquine recipients, 10 of 13 recipients of chloroquine only, and 12 of 12 recipients of chloroquine plus primaquine completed at least 8 weeks of follow-up (or had relapse). There was 1 relapse among recipients of chloroquine plus tafenoquine, 8 among recipients of chloroquine only, and 3 among recipients of chloroquine plus primaquine. The rate of protective efficacy (determined on the basis of reduction in incidence density) for all recipients of chloroquine plus tafenoquine, compared with recipients of chloroquine plus primaquine, was 92.6% (95% confidence interval, 7.3%-99.9%; P=.042, by Fisher's exact test).

Conclusions: Tafenoquine doses as low as a single 600-mg dose may be useful for prevention of relapse of *P. vivax* malaria in Thailand.

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