

Letters to the Editor

Three-Day Quinine-Clindamycin Treatment of Uncomplicated *Falciparum* Malaria Imported from the Tropics

We recently reported the results of a controlled trial conducted between June 1996 and December 1998 comparing a 3-day quinine-clindamycin (QC) regimen (53 patients) with a 7-day Q regimen (55 patients) for treating uncomplicated *Plasmodium falciparum* malaria in returned travelers (1). There was no significant difference between these regimens with regard to the 28-day cure rate and parasite and fever clearance times. Furthermore, we noted a trend towards a better tolerance of the QC regimen (1).

Between January 1999 and December 2001, a total of 123 more patients with uncomplicated falciparum malaria received the previously studied 3-day treatment with intravenous QC (with Q at 8 mg/kg of body weight every 8 h and C at 5 mg/kg every 8 h). Patients had returned from areas in sub-Saharan Africa where malaria is endemic. During the treatment, 12 (9.8%) patients presented with minor side effects, including transient hypoacusis (4%), nausea (3.2%), transient hypoglycemia (1%), anxiety (0.8%), diarrhea (0.8%), and transient rash (0.8%). The treatment was stopped for two patients on day 2 because one had severe diarrhea and the other had intense abdominal pain. In both of these cases, the C was stopped and the patients completed therapy with a 7-day Q regimen and remained well. Bacteriological analyses of the feces, including a test for *Clostridium difficile*, were negative. When discharged on day 4, all 121 patients who completed the 3-day treatment were afebrile, and thick blood smears were negative in all cases. Thereafter, follow-up included physical examination and analysis of thick blood smears prepared during visits in our outpatient department on days 7 (74.4% of patients returned), 14 (61.1% returned), and 28 (40.5% returned). One patient had positive thick blood smears (parasitemia, <0.1%) on day 14 without any fever. He did not receive any treatment. He remained afebrile, and a thick blood smear on day 28 was negative. A second patient presented on day 14 with a positive blood smear that had been prepared and analyzed in a private laboratory (parasitemia, <0.1%). Although he had no fever, he treated himself with oral mefloquine before coming to the visit. This patient was excluded from the analysis. He remained well. All other patients seen at the follow-up visits presented with no fever, and their thick blood smears were negative. Concerning the patients who did not complete the follow-up procedure, all except two were reached by phone. None had a febrile illness or had been hospitalized for malaria recrudescence in the 6 months following the QC treatment. In summary, out of the 123 patients who received the QC treatment, 122 were included in the analysis and 1 was excluded. In the per-protocol analysis, 120 of 122 patients (98.4%) were considered successfully treated with the

3-day QC regimen. In the intention-to-treat analysis, 118 of 122 (96.7%) were considered successfully treated.

We report here the results for the largest series of returned travelers with uncomplicated falciparum malaria treated with a 3-day QC combination. The data were obtained through an open protocol. However, 98.4% of the patients could be evaluated after a 6-month period by clinical and parasitological follow-up or by phone. The present data extend the results from our previous randomized study and confirm that a 3-day intravenous QC regimen for treating imported uncomplicated *P. falciparum* malaria in returned travelers is well tolerated and can be proposed as a first-line treatment regimen for imported uncomplicated falciparum malaria. The benefit includes the reduction of the duration of the Q treatment and its side effects.

In our unit, around 30% of patients with uncomplicated malaria present with vomiting. Thus, intravenous treatment is often required. Both Q and C may be given by this route, and the combination may be as effective in oral treatment (in the absence of vomiting). As it is preferable that therapy of uncomplicated malaria be oral, a pilot study comparing 3-day oral QC treatment to mefloquine treatment has just started in our unit.

REFERENCES

1. Parola, P., S. Ranque, S. Badiaga, M. Niang, O. Blin, J.-J. Charbit, J. Delmont, and P. Brouqui. 2001. Controlled trial of 3-day quinine-clindamycin treatment versus 7-day quinine treatment for adult travelers with uncomplicated falciparum malaria imported from the tropics. *Antimicrob. Agents Chemother.* 45:932-935.

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