

Clindamycin Toxicity in Falciparum Malaria

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OBJECTIVE: To determine whether a 3 day course of quinine and clindamycin is effective and acceptable therapy for falciparum malaria in Thailand.

BACKGROUND: Workers at the National Institutes of Health (NIH) have claimed that 3 days therapy with quinine and clindamycin is effective and not toxic.

PROGRESS: Six patients with *P. falciparum* malaria (Table 1) were started on quinine 540 mg (base) every 8 hours together with clindamycin 450 mg every 8 hours, for a 3 day course. In 4 patients the clindamycin was stopped because of severe drug toxicity principally manifested as severe nausea and retching ("dry heaves"). After the symptoms of the malaria and drug toxicity had subsided, the clindamycin was resumed without any further problem; however, it was decided that full dose combination therapy with quinine and clindamycin was too toxic.

Eight patients with falciparum malaria (Table 2) received combination therapy with reduced doses of quinine and clindamycin (usually quinine 270 mg every 8 hours and clindamycin 150 mg every 8 hours). Five of these patients developed gastrointestinal symptoms, especially retching.

Quinine alone for 3 days (Table 3) was given to two of these patients, which brought the disease under control in hospital. One of these patients developed a drug-induced fever. Clindamycin alone for 3 days (Table 3) brought the disease under control in 2 other patients. Follow-up in all these studies has not yet been completed.

Although the combination of quinine and clindamycin appeared to be efficacious, its toxicity was unacceptable. Clindamycin or quinine alone was effective in treating relapses.

Table 1. Full Dose Combination Therapy with Quinine and Clindamycin

Case No.	Parasite Count (per cmm)	Parasite Clearance (Hours)	Initial Fever (°C)	Fever Clearance (Hours)	Comment
1	101556	93	39.6	60	
2	55419	64	40.0	39	
3	146692	117	38.3	82	Drug Toxicity
4	8654	69	40.0	69	Retching
5	33943	85	40.6	60	Retching
6	5642	69	40.0	92	Retching
Average	58649	83	39.8	67	

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Table 2. Half-dose Combination Therapy with Quinine and Clindamycin

Case No.	Initial Parasite Count (per cmm)	Parasite Clearance (Hours)	Initial Fever (°C)	Fever Clearance (Hours)	Comment
7	13312	92	38.9	32	Retching
8	236600	116	39.1	—	Fever
9	358830	119	37.5	—	Fever and Retching
10	214760	115	38.5	42	
11	2730	59	40.9	58	
12	4914	96	40.2	—	Abdominal Pain
13	61880	—	38.0	—	Toxicity
14	54432	67	39.9	18	
Average	104671	95	39.1	—	

Table 3. Quinine Therapy for 3 days

Case No.	Initial Parasite Count (per cmm)	Parasite Clearance (Hours)	Initial Fever (°C)	Fever Clearance (Hours)
15	87804	84	37.9	—
16	21708	69	39.8	—

Table 4. Clindamycin Therapy for 3 days

Case No.	Initial Parasite Count (per cmm)	Parasite Clearance (Hours)	Initial Fever (°C)	Fever Clearance (Hours)
17	820	61	39.2	—
18	18144	92	39.9	76