TREATMENT OF THE ACUTE ATTACK OF MALARIA CAUSED BY *Plasmodium falciparum* : FAILURE OF FANSIDAR

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OBJECTIVE : To determine the effect of several therapeutic regimens upon *P. falciparum* asexual parasitemia in naturally infected humans.

BACKGROUND : Fansidar's efficacy in falciparum malaria has been proven, with radical cure rates ranging from 80-90% (1). It has become the standard therapeutic regimen in Thailand for falciparum malaria and has also been widely used as a chemoprophylactic agent, especially by the Thai military forces. AFRIMS has long included Fansidar in its malaria research programs, first to test its efficacy and later, when it became standard therapy, using it as a control when testing newer experimental drugs.

METHODS : This study was carried out in two locations :

1. Chantaburi, where study subjects were Royal Thai Marines on fansidar prophylaxis.

2. Phrabuddhabat, where civilian subjects came for treatment at the local Malaria Treatment Center.

Admission criteria for the subjects were :

1. males at least 18 years for age.

2. willingness to volunteer for hospitalization and follow-up.

3. uncomplicated disease of mild to moderate severity.

4. asexual parasite count between 1,000 and 100,000/cu.mm.

Patients included in this report received either 2 or 3 tablets of Fansidar.

Treatment results were evaluated according to the WHO criteria originally conceived to evaluate chloroquine resistance. "S" indicated clearance of asexual parasitemia and maintenance of a negative blood film for 28 days after therapy. "RI" refers to initial clearance of parasitemia followed by recrudescence within 28 days after treatment. "RII" indicates initial reduction in the level of parasitemia, but failure to clear within seven days. "RIII indicates no reduction in parasitemia following treatment.

RESULTS : In Chantaburi, 17 patients were treated with 2 tablets of Fansidar, and all were resistant (12 RII and 5 RIII). A further 8 were treated with 3 tablets of Fansidar, of which 2 could not be definitely categorized, one was sensitive and 5 were resistant (1 RI and 4 RII). All marines in Chantaburi are supposed to be on Fansidar prophylaxis (2 tablets every 15 days) and our results show that 93% of those admitted with malaria had measurable sulfa levels in their blood before treatment was started.

In Phrabuddabat, 15 patients were treated with 2 tablets of Fansidar. Information was incomplete for four. Of the remaining 11, three were sensitive and eight were resistant (3 RI and 5 RII). Sixteen patients there were treated with a three tablet regimen. Three of these responded well but became parasitemic before day 28 but after spending at least a week in a malarious area. Of the remaining 13, three were sensitive and ten were resistant (1 RI, 7 RII and 2 RIII). The results of patients with complete follow-up are summarized in Tables 1 and 2. Every one of the RII and RIII resistant cases of malaria diagnosed in Phrabuddabat claimed to have acquired their malaria some distance away, on the Kampuchean border. At the present time, Fansidar resistant malaria in Thailand seems confined to the border area, but high rates of migration are likely to lead to further spread.

REFERENCE :

1. Doberstyn, E.B., P. Phintuyothin, S. Neoypatimanondh, C. Teerakiartkamjorn : Single Dose Therapy of Falciparum Malaria with Mefloquine or Phyrimethamine-Sulfadoxine. Bulletin of the World Health Organization. 57(2): 275-279, 1979.

Table 1. Result of Treatment of Falciparum Malaria with Fansidar, 2 Tablets p.o. in Subjects with Complete Follow-up

Location	Number of Patients	Result of Therapy				Percent Sensitivity
		S	RI	RII	RIII	
Phrabuddabat	11	3	3	5	-	27%
Chantaburi	17	-	-	12	5	0%
Total	28	3	3	17	5	11%

Table 2. Result of Treatment of Falciparum Malaria with Fansidar, 3 Tablets p.o. in Subjects with Complete Follow-up

Location	Number of Patients	Result of Therapy				Percent Sensitivity
		S	RI	RII	RIII	
Phrabuddabat	13	3	1	7	2	23%
Chantaburi	6	1	1	4	-	17%
Total	19	4	2	11	2	21%