PRESUMPTIVE TREATMENT OF MALARIA MAY DELAY DIAGNOSIS

Dear Editor,

Reference is made to the article by Agarwal et al [1] on malaria control in troops in chloroquine resistant *P. falciparum* areas. I would like to state that presumptive treatment of malaria with 600 mg of chloroquine base is inadequate and it is now recommended to use the standard course of treatment consisting of 1500 mg of chloroquine base over a period of three days [2].

Presumptive treatment can cause temporary suppression of parasitemia and recrudescence at a later date. A large number of soldiers, from units located in Nagaland, are referred for evaluation of fever after presumptive treatment with chloroquine. Many of them are afebrile on admission but have splenomegaly. Blood smears (thick and thin) taken at regular intervals remain negative for malarial parasite. The fever recurs after one to four weeks, blood smears become positive for *P. falciparum* and definitive treatment is then given. These cases are presumably due to R-I level of chloroquine resistant malaria.

In order to cut down the delay in diagnosis it would be pertinent to withhold presumptive treatment in those patients who can be evacuated to nearest hospital within 24 hours. Otherwise blood smears taken prior to presumptive treatment must accompany the

patient.

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2. Park K. Park's textbook of preventive and social medicine. 14th ed., Jabalpur: Banarsidas Bhanot Publishers, 1994;181.

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REPLY

Troops were operating in thick jungles in hostile terrain where diagnostic and therapeutic measures were not easily available. Evacuation time was unpredictable due to bad weather and bad road. To avoid mortality due to malaria, blood slide was taken and presumptive treatment was given in present study as per NMEP recommendation.

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HARNESSING THE HUMAN RESOURCES IN AMC

Dear Editor,

The findings of the survey conducted among AMC recruits and soldiers (*MJAFI* 1998;54:289) are interesting. The fact that recruits were surveyed for motivators is good. I request the author for the following information.

(a) Whether the survey of AMC soldiers was carried out in only one city.

(b) Size of population surveyed & means.

(c) Whether a relationship was established between the following factors vis-a-vis the findings (like & dislike).

(i) Level of education

(ii) State/Place of Origin

(iii) Trade

I also wonder if a wider survey could be jointly undertaken by the author/others, specially in remote areas and smaller hospitals/Fd Ambulance to study whether motivators and demotivators could be assessed analytically vis-a-vis place of stay (duty) and time, which are transient, and occupation, which is not.

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REPLY

The survey was conducted at only one place. As a matter of fact the only place where such a study for recruits can be made possible is a training centre. The total population covered is about 4000 which includes both serving soldiers and recruits. The soldiers were from all trades with varying seniority from four large establishments.

Structured questionnaire was used as the study instrument. 96% of the recruits and 89% of the soldiers were matriculates and above. 70% of the recruits had rural background. However the above attribute did not make any significant relationship with the study findings.

While welcoming the proposal for a broader study, it is emphasised that the surveyed soldiers had their share of remote areas, smaller hospitals and field ambulances in their own turns.

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A CLINICAL STUDY OF FALCIPARUM MALARIA-302 CASES

Dear Editor,

We read this excellent article on clinical features of Malaria; but it raises few very important questions mainly about the management followed by the author [1].

The author has decided to give Regime II i.e. amodiaquine with tetracycline and pyrimethamine-sulfadoxine combination in uncomplicated cases; but almost 25% of these had to be given quinine (Regime I) subsequently due to poor response. This almost confirms that these patients had chloroquine and/or pyrimethamine-sulfadoxine resistant malaria.

This aspect is very pertinent specially when the study was con-

ducted in an endemic area of chloroquine resistant *Falciparum* Malaria (as mentioned by the author). In such situation it will be right to start quinidine in case quinine is in short supply, a plea given by the author for following Regime II.

Even quinine resistance is a reality and it alone does not give 100% cure rates [2]. Moreover MT malaria is too serious an illness to treat with amodiaquine in 20th century when oral as well as parenteral artemisine (Quinghaosu) derivatives are easily available in the Indian market.

The 3.3% cases who were re-admitted may be fresh infection but the possibility of delayed recrudescence cannot be denied specially

after 3 days of quinine; and pyrimethamine-sulfadoxine resistance too is not infrequent.

1.3% of patients in this series had symptoms persisting for 1 to 2 months and such patients are usually repeatedly treated with empirical chloroquine as reported and observed by us [3]. For such patients the ideal treatment would be quinine with doxycycline to avoid delayed sudden deterioration and high mortality.

The message is that quinine for 5 days with tetracycline or pyrimethamine-sulfadoxine is mandatory for all uncomplicated MT Malaria cases and there should be no hesitation in using artemisine derivatives for proved and ill looking MT Malaria cases.

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2. Looareesuwan S, Charoan P, Ho M et al. fatal PF Malaria after an inadequate response to quinine treatment. J Infect Dis 1990; 161:577.
3. Mehta SR, Kohle VS, Chauhan SS. The changed clinical spectrum of Malaria due to drug resistance. J Assoc Physician India 1998;46:360-2.

REPLY

I thank Colonel SR Mehta for his valuable comments and advice on my study.

Quinidine was used successfully in seven complicated cases of falciparum malaria (not included in the study). Monitoring QT interval is essential when using quinidine, and doing so in a large number of patients undergoing treatment simultaneously would have been cumbersome. Hence quinidine was not used freely. The initial encouraging results from the alternate regimes used in the study further obviated the need for use of quinidine.

The study was done in 1993. At the time Artemether and its derivatives were not available in the local market.

There is no denying that five day course of quinidine with or without doxycycline/sulpha-pyrimethamine is ideal for uncomplicated falciparum malaria. The alternate regimes used in the study were not meant to be a substitute for the above regime under ideal circumstances. The challenge was to find an alternate regime which can be used in a peripheral hospital with its resource constraints, to treat a large number of patients in the face of acute quinine shortage without undue increase in morbidity/mortality. Within this perspective the alternate regimes used were a reasonable success.

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