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N S. Ali

Aga Khan University, niloufer.ali@aku.edu

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Evaluation and Management of Malaria in General Practice

Pages with reference to book, From **103** To **105**

Niloufer Sultan Ali (Division of Family Medicine, Department of Community Health Sciences, The Aga Khan University, Karachi.)

Clinical Presentation of Malaria

Usually characterized by fever with rigors but may mimic other viral infections like influenza, hepatitis and bacterial infections such as respiratory and urinary infections. However, clinical assessment, is the only feasible approach to the diagnosis of malaria. Laboratory confirmation has a limited role.

The clinical diangosis of malaria is defined on the presence, or recent history of fever, after exclusion of other major causes of fever[1,2]. The exclusion of other causes of fever may be difficult. But in a high malaria risk area, WHO guidelines recommend treatment with antimalarial drugs for any febrile child. In low risk malarious areas, malaria is considered in a febrile patient after giving thought to other conditions such as URTI, UTI and others. If any of these latter conditions is observed, the child is first treated for these conditions and if no improvement occurs within 2 days, the patient is treated for malaria[2].

Evaluation

A basic clinical examination is required to identify persons with signs of severe malaria. The examination should include an assessment of:

* Central nervous system function - presence or history of convulsions and an assessment of the patient's mental status.
* Presence of respiratory distress
* Hydration status/Vom itting
* Presence of Hyperpyrexia
* Presence of anemia.

A history of prior anti-malarial therapy should always be obtained for the current illness and whether the patient is able to take oral medication or not.

The primary purpose of anti-malarial therapy is to ensure prompt, effective and safe treatment of malaria. It could be either clinical cure or radical cure.

Chemotherapy of malaria

There is insufficient evidence to declare the whole of Pakistan as being chioroquine resistant P. Falciparum (CRF), though it has only been documented in Punjab and the Northern Areas[1,2]. Other species (vivax, ovale and malariae) are considered chioroquine sensitive. However, vigilance should be kept up to detect resistance in this species as well. It is recommended that the uncomplicated case be treated with chioroquine except in areas of resistance. In CRF - declared areas the second line drugs may be used. Indiscriminate use of the newer anti-malarials should be avoided as this might lead to drug resistance. All severe, complicated cases suspected or confinned should be referred to a hospital as early as possible and treatment started immediately with intravenous quinine.

Mefloquine 250 mg every week (duration as for chloroquine)

Travellers are advised to carry chloroquine, sulfa/pyrimethamine combinations, mefloquine, quinine as stand-by treatments, depending on the drug resistance status of the parasites in the areas to be visited. Halofantrine is no longer recommended following reports that it can result in prolongation of QT intervals and of ventricular dysrhythmias in susceptible individuals.

Travellers must check with Family Physicians! General Practitioners about chloroquine sensitive or resistant areas.

Malaria in pregnancy

Malaria especially that caused by Plasmodium falciparum is often severe in pregnant patients and

carries a high risk of mortality to the foetus. Foetal distress commonly goes undiagnosed in this situation.
There is an increased risk of premature labour, still births and abortions occurring due to the malaria hyperpyrexia and the use of some anti-malarial drugs with abortifacient effects but mainly due to the intrinsic disease itself.
Occasionally in non-immune mothers the malarial parasites may cross the placenta initiating fetal infection. Congential malaria results in intra-uterine growth retardation. Infected neonates have seizures, jaundice, hepatomegaly and often pulmonary edema.
Malaria caused by P. Vivax, P. Ovale and non chioroquine resistant P. Falciparum are treated with chloroquine phosphate as per standard therapy. If Primaquine phosphate is prescribed the fetus is at risk of intra-vascular hemolysis because fetal RBCs are relatively deficient in G6PD and glutath lone. Both pyrimethamine and Fansidar are teratogenic and their risk has to be weighted against their benefits to the mother.
In summary malaria in pregnancy causes significant maternal and fetal morbidity and fetal mortality. Its treatment should be cautiously selected in consideration of the abortifacient properties and teratogenicity of some of the anti-malarial drugs mentioned. Non-immune mothers
should be discouraged from travelling to endemic areas, as safe therapy for chioroquine resistant plasmodium falciparum is not available for pregnant patients.

References

1. World Health Organization (1992). A training guide for District Health workers on malaria control in Tropical Africa. Brazzaville, WHO Regional Office for Africa.
2. World Health Organization (1996). Management of uncomplicated malaria and the use of antimalarial drugs for the protection of travellers.