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Uncomplicated Plasmodium Vivax Malaria Treatment in India

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Abstract

Background: Uncomplicated P. vivax Malaria treatment in India is straightforward because the same regime exists for the North-eastern part of the country and the rest of the country unlike treating uncomplicated P. falciparum Malaria where different regimes exist for these two areas. However, a slightly different approach is needed for the treatment of pregnant patients.

Objectives: To find out what are the antimalarials prescribed in India for treating uncomplicated Vivax Malaria.

Methods: By reviewing documents prepared by WHO and NVBDCP.

Results: It is found that the same regime exists for treating uncomplicated Vivax Malaria whether the patient comes from any part of the country. However, some modifications are made depending on the pregnancy status of the female patient.

Conclusions: Some more education is required among health care providers on how to treat uncomplicated P. vivax Malaria. This paper addresses this concern.

Keywords: Malaria, Plasmodium vivax, Chloroquine, Primaquine, Hypnozoite.

INTRODUCTION

Treatment of Malaria depends on the species of Plasmodium causing it. If the species is P. vivax, the treatment is by giving Chloroquine and Primaquine. If the patient is pregnant, she is treated with Chloroquine only but no Primaquine. If the patient is an infant, it is also treated with Chloroquine only but no Primaquine. Primaquine is also not given to known G6PD-deficient individuals.[1]

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MATERIAL AND METHODS

The study design included analysis of the documents of the WHO and NVBDCP pertaining to treating P. vivax Malaria that is uncomplicated.

RESULTS

Guidelines for the treatment of Malaria published by the WHO in 2015 dealt with treating P. vivax Malaria that is uncomplicated, in the following manner.[2]

Table 1: Dosage of Chloroquine for Uncomplicated P. vivax Malaria.

A total of 25 milligrams of Chloroquine base per kilogram of body weight over three days as follows:		
Day 1	**Day 2**	**Day3**
10 milligrams per kilogram bodyweight	10 milligrams per kilogram bodyweight	5 milligrams per kilogram bodyweight

In addition to the above, it was also advised to give a fourteen-day course of Primaquine at a dose of 0.25 milligrams per kg of body weight to prevent relapses due to the release of hypnozoites from the liver.

The country's Drug Policy on Malaria 2013 dealt with treating uncomplicatedP. vivaxMalaria in the same way as was given in the WHO guidelines above.[3]

The 2014 guidelines for diagnosis and treatment of Malaria covered treating uncomplicated P. vivax Malaria in the same way as was done by the WHO document described above. It was recommended that patients stop Primaquine in case patients notice any (i) dark-colored urine, (ii) yellow eyes, (iii) blue discoloration of the lips, pain in the abdomen, nausea, vomiting, and breathlessness.[1]

The operational document on Malaria Elimination in India, published in 2016, also covered treating uncomplicated P. vivax Malaria in the same way as was done by the WHO guidelines given above. It also advised patients to stop Primaquine in case they noticed high coloration of urine or blue coloration of lips.[4]

DISCUSSION

The Government of India, in 2016, adopted aframework for Malaria Elimination in India covering the period 2016 – 2030.[5] This was based on WHO's Global Technical Strategy for Malaria, covering the same period, adopted in 2015 and updated in 2021.[6]

The aim is to reach no Malaria cases by 2027 and then wait for three years before WHO can grant Malaria-free status certification. It is already the beginning of 2022 and India is about to reach the halfway mark of this period from 2016 to 2027. The Annual Parasite Incidence (API) has also come down significantly (it was 0.32 during 2018).[7]

CONCLUSION

If a medical practitioner, whether in government service or in private practice, comes across an uncomplicated case of P. vivax Malaria, he/she can manage the patient using the drugs at the dosages recommended above. This will be a step towards reaching the target of zero Malaria cases in the country by 2027.

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