

Short Communication**KABP STUDY OF MALARIA IN THE RURAL AREAS OF UTRAN, SURAT**Verma Anupam¹, Bansal RK², Thakar Girish³, Modi Krishna⁴, Munshi Ankit⁴, Nagarsheth Mansi⁴¹Associate Professor, ²Profesor and Head, ³Regional Deputy Director, Health & Family Welfare Department, Govt. of Gujarat, ⁴Ex-Interns, Dept. of Community Medicine, SMIMER, Surat- 395010, Gujarat.**Correspondence:** anupamver@gmail.com**INTRODUCTION**

Malaria an important public health problem affects all age groups and it is responsible for considerable morbidity and mortality in South East Asia and the Indian subcontinent.^{1,2} Incidence of malaria worldwide estimated to be 300-500 million cases each year, out of which about 90 percent occurring in Sub-Saharan Africa and India³. Like India, malaria problem in the Gujarat state has also remained quite local and focal as per the current epidemiological situation⁴. Malaria kills between 1.1 to 2.7 million people worldwide each year and indirectly contributes to illness and death from respiratory infections, Diarrhoeal diseases and malnutrition³. Malaria is related with demographic and socio-economic development of individuals. Housing also plays an important role in its epidemiology of and ill-ventilated houses provide an ideal indoor resting place for malaria³. Epidemics occur mostly in the rainy season³. The study explores this important public health problem in our rural area as this problem has become pronounced with the emergence of chloroquin resistance and increasing transmission of plasmodium falciparum in Surat. People living in tribal and rural areas are vulnerable to the transmission of malaria due to lack of awareness, poor infrastructure and poor environmental management policies among others. Consequently malaria can be associated with outbreaks or significant morbidity or mortality in such areas.⁵ The present study addresses such concerns.

METHODS AND MATERIALS

This study was conducted, in the months of July and August 2005, by the face-to-face interview technique in the villages of Kosad, Chhaprabhatha, Variyav, Naana Varachha, Utran covered under Utran PHC Surat city by using a pretested and semi-structured interview schedule developed with inputs from various stake holders. The total population of Utran primary health centre was stratified according to its 5 sub-centers and twenty five households were randomly selected from each sub-center by using a simple random sampling procedure. The questions were asked to the head of the household and a total of 125 household were thus interviewed.

OBSERVATIONS AND DISCUSSION

The study revealed that only 43.2 percent of the people knew that malaria is spread through mosquito bite, with 27 (21.6%) harbouring misconceptions such as spread through water borne and food borne routes (37.7%), other insects and flies (37%) and environmental pollution (22.2%). The majority (77.6%) were unaware of the breeding sites of

mosquitoes or harboured misconceptions thereof and only 22.4 percent knew their breeding places. Only 44% of the respondents were aware of the concept of intradomestic resting places.

54.3 percent were aware of fever as a symptom of malaria and 27.2 percent as fever with chills. Knowledge regarding other symptoms was relatively scant and another problem was the mentioning of other symptoms in the absence of the symptom of fever. Other symptoms listed were headache (16%), vomiting (13.6%), bodyache (10.4%), backache (4.8%), vertigo (4.8%) and anorexia (3.2%) or symptoms related with other co-infections, yet construed as that of malaria such as cough (6.4%) or conjunctivitis (4%). These could be differentiated somewhat on detailed history taking. This fact reveals that despite malaria being endemic and epidemic in the region the awareness among the population regarding all of the aforementioned aspects is poor and the public awareness needs to be increased through various IEC means. Encouragingly 74.4 percent of them had sought treatment at government healthcare facilities. However, only 24.8 percent had sought treatment within a day of the commencement of the symptoms of malaria. The remaining 58.4%, 14.4%, 1.6%, 0.8% had sought treatment after 1 to 2 days, 3 to 4 days, five to ten days and more than 10 days. This observation is worrisome as it can lead to enhanced morbidity and mortality and such a delay in treatment seeking behaviour urgently needs to be corrected in order to prevent avoidable malaria deaths.

82.4 percent had completed their advised treatment, though the advised treatment had not always included taking of the radical treatment. The remaining (17.6%) gave reasons as relief of symptoms (78.9%) or drugs too hot for their body (10.5%) or to save drugs for future bouts (10.5%) for not taking the completing the full course of the treatment. The lack of the receiving of radical treatment is a matter of grave concern. What was striking was the fact that the lack of taking the radical treatment was appreciably very high in the instances that the respondents had sought treatment from the private providers, highlighting the fact that the private providers need to be sensitized on the imperative necessity to ensure that their patients actually receive the radical treatment.

Only 36.8 percent of the respondents believed in undertaking proven personal protective methods for the prevention of malaria and of these 21.6% were undertaking effective measures such as use of mosquito nets (16.8%) and chemoprophylaxis (4.8%).

Others were resorting to measures such as use of mosquito repellent coils and creams, sleeping under fans, cleaning their houses and closing all the windows and doors at dusk time. Surprisingly, not even one respondent had listed screening of doors and windows as an effective method and also none of the respondents were using impregnated bed nets. The concept of bioenvironmental control was totally alien to all studied people which is proven malaria transmission control strategy.⁶ Almost all (96%) believed that malaria is curable and only 10.4 percent had opined that it leads to deaths.

The above profile among rural people as regards breeding places of mosquitoes; transmission and symptoms of malaria; low adoption of personal protective methods; and absence of bioenvironmental control is alarming and detrimental to the objectives of National Anti Malaria Programme and points to the need for effective health promotional measures. An encouraging finding is the higher utilization of the government health care facilities compatible with

implementation of rationale malaria treatment guidelines.

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