ORIGINAL ARTICLE

SOCIO DEMOGRAPHIC AND CLINICAL FEATURES OF THE MALARIA CASES

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ABSTRACT

Objective: To study the sociodemographic profile of malaria cases admitted on the basis of clinical features.

Methods: With purposive sampling 100 cases were taken in these studies who were admitted with clinical findings of fever at Sayajirav Gyakwad Hospital, Vadodara. The indoor patients from April 2006 to October 2006 were retrieved using a prepared case sheet performa on the basis of patient's demographic profile and clinical findings.

Results: Out of 100 cases 66 patients were male and 44 female. Highest age group among male (46.96) as well as female (47.05) patients were more than 30 year age. The infection rate was higher among the younger age group. Hepatomegaly (46%), spleenomegaly (56%) and jaundice (49%) were associated with malaria.

Interpretation and Conclusion: Malaria is responsible for major health concern in this region, particularly in rainy season and is found to affect comparatively the younger adult population.

Key Words: Socio demographic, Malaria, Clinical feature

INTRODUCTION

Malaria continues to be a major killer of mankind, especially in developing countries.[1] It is a disease of antiquity, has proved to be a formidable deterrent to the cultural and socio-economic progress of man in tropical, subtropical and monsoon prone zones of world.[2]

The Causative agents in humans are four species of plasmodium protozoa-P.falciparum, P.ovale and P.Malariae. Of these, P.Falciparum account for majority of morbidity and is most lethal.

The disease now occurs in more than 90 countries worldwide. It is estimated that there are over 500 million clinical cases and 2.7million malaria –caused deaths per year. Being associated with most serious complications, diagnosis of P.falsiparum malaria constitutes a medical emergency. One of the most pronounced problems in controlling the morbidity and mortality caused by malaria is limited access to effective diagnosis and treatment in areas where malaria is endemic.[3]

MATERIALS AND METHODS

It was a cross sectional study where purposive sampling technique used with sample size of 100 indoor patients with suspicious of having fever on the basis of clinical findings at Sayajirav Gyakwad Hospital, Vadodara during April 2006 to October 2006. These patients were taken from Medical ward only during the study period.

The information collected using interview technique facilitated by the guidelines (questionnaire) prepare for asking questions.

The information noted in the questionnaire form.

After the completion of data collection, data entry was done into Excel data file. Data analysis was done by Epi_info version 6.04 software.

RESULTS

During the present study 100 cases were analyzed in respect of clinical presentation.

Table:1 Age and Sex wise Distribution of Clinically Susceptible Cases.

Age Group	Clinically susceptible cases	
	Male (%)	Female (%)
0 – 1 month	00 (Nil)	01 (2.94)
1 – 12 months	02 (3.03)	00 (Nil)
1 – 10 years	04 (6.06)	06 (17.64)
10 – 30 years	29 (43.93)	11 (32.35)
> 30 years	31 (46.96)	16 (47.05)
Total	**66**	**34**

Male preponderance was observed in relation to female in the age group of 10-30 years (43.93%) and > 30 years (46.96%).

Table 2: Socioeconomic Status of Malaria Cases

Socio-economic Class*	Cases of Malaria (%)
I	Nil
II	02 (2.0)
III	08 (8.0)
IV	34 (34.0)
V	56 (56.0)
Total	100

*Modified Prasad's Classification
All India Consumer Price Index: 2770 (April 2006)

This table shows that majority of cases belongs to socio-economic class V (56.0%) and IV (34.0%). The other classes has shown lower incidence. This may be due to less utilization of Government Health Facilities by higher class population. This difference is attributed to poverty, poor sanitary conditions and unplanned settlements, stagnation of water in slum area and inability to use mosquito repellents and mosquito nets.

Table: 3 Clinical Feature of Malaria cases.

Clinical Features	Clinically susceptible cases ((n=100) (%)
Fever:	
High grade	84 (84)
Moderate	0 (0)
Low grade	16 (16)
Continuous Fever	48 (48)
Intermittent Fever	52 (52)
Chills	79 (79)
Rigors	28 (28)
Jaundice	49 (49)
Altered Sensorium	16 (16)
Convulsions	10 (10)
Bleeding tendencies	08 (08)
Hepatomegaly	46 (46)
Splenomegaly	56 (56)

Out of 100 cases studied 84 % of the cases showed history of high grade fever followed by chills (79%), presence of jaundice in 49 %. On clinical examination, 56% of the cases showed spleenomegaly followed by hepatomegaly in 46%.

DISCUSSION

Malaria is a global health problem for nearly 3 million deaths each year and on the increase worldwide. Improvement in malaria diagnostics should facilitate identification of individuals suspected with the malaria parasites and treatment of such cases with appropriate drugs.

During the present study 100 cases were analyzed in respect of clinical presentation by routine microscopic methods and the immune assay techniques namely pLDH antigen detection for rapid P. falciparum and P. vivax detection. In our study, we observed male preponderance as far as the sex is concerned and is comparable with the study carried out at Malaria Research Centre, Civil Hospital, Nadiad (Gujarat) [4].

Muddaiah & P.S. Prakash studied a total of 314 patients were diagnosed and treated for malaria, of them 124 were treated as outpatients and 190 cases were managed as inpatients. Males (81%) outnumbered females (19%) and many were within the age group of 21–30 yr.[5]

The clinical examination of the patient helped in the diagnosis of malaria which showed hepatomegaly (46%) and splenomegaly (56%). The positive predictive value correlated with the

blood peripheral examination (96%) along with the positive serological tests (82%) and this can be compared well with the hospital attended and diagnosed case analysis carried out by Basu et al, at Calcutta[6].

George Peter et al reported that thirteen (65%) adults out of the 20 chosen had vomiting as a symptom followed by 12 (60%) who had headache. Eight (40%) adults had jaundice.[7]

Contributors

T.B.J conceived the idea, supervised the data collection. She will act as guarantor for the paper. P.T collected data, helped in analysis and prepared the initial draft of the paper. B.S provided support and encouragement to carry out this study. V.C helped in analysis and drafting the manuscript.

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