

# A clinical profile of the patients with malaria at tertiary health care center

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## Abstract

**Background:** Malaria remains, as it has been for centuries, one of the most serious parasitic diseases worldwide, affecting 300–500 million people and causing over 1 million deaths annually. **Aims and Objectives:** To study Clinical profile of the patients with malaria at tertiary health care center. **Methodology:** This was a cross-sectional study carried out in the department of Medicine of a tertiary health care centre during the one year period i.e. January 2017 to January 2018, during the one year period all the patients with fever were screened for malaria by peripheral smear those patients showing parasite were taken into study, so during the one year period there were 48 patients showed positive on smear. All details of the patients like age, sex, type of malaria, clinical features etc. all such details were entered to excel sheets and analyzed by excel software for windows 10. **Result:** In our study we have seen that the majority of the patients were in the age group of 20-30 were 31.25%, 30-40 were 22.92%, 40-50- 18.75%, 50-60- 16.67%, >60 were 10.42%. The majority of the patients were Male i.e. 58.33%, Female were 41.67%. The majority of the patients were Pl.Vivax- 64.58%, Pl.Falciparum -25.00%, Mixed -10.42%. The most common symptoms were Fever-100%, Vomiting-85%, Headache- 83%, Myalgia- 78%, Joint pain- 75%, Jaundice- 73%, Pain abdomen- 64%, Diarrhoea- 48%, Cough and Breathlessness- 13%, Oliguria- 9%, Impaired consciousness- 3%. Most common Signs were Splenomegaly- 75%, Pallor- 63%, Icterus in 43%, Hepatomegaly- 31%, Petechiae in 7%, Altered sensorium- 5%, Convulsion- 3%. **Conclusion:** It can be concluded that majority of the patients were in the age group of 20-30 The majority of the patients were Male. The majority of the patients were Pl.Vivax, The most common symptoms were Fever, Vomiting, Headache, Myalgia, Joint pain, the most common Signs were, Splenomegaly, Pallor, Icterus, Hepatomegaly.

**Key Word:** malaria, Pl. Vivax, Pl. Falciparum, Clinical features of malaria.

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## INTRODUCTION

Malaria remains, as it has been for centuries, one of the most serious parasitic diseases worldwide, affecting 300–500 million people and causing over 1 million deaths annually.<sup>1</sup> *Plasmodium falciparum* accounts for nearly 50% of reported malaria cases. *P. falciparum* infection can

lead to cerebral malaria, acute renal failure, acute malarial hepatitis, hypoglycemia, hyperpyrexia, noncardiogenic pulmonary edema, adult respiratory distress syndrome, adrenal insufficiency-like syndrome, hyperparasitemia, blackwater fever, cardiac arrhythmias, and gastrointestinal syndromes.<sup>2,3,4</sup> Typically, a higher parasite count is associated with a more severe infection<sup>5</sup> and increased mortality.

## METHODOLOGY

This was a cross-sectional study carried out in the department of Medicine of a tertiary health care centre during the one year period i.e. January 2017 to January 2018, during the one year period all the patients with fever were screened for malaria by peripheral smear those patients showing parasite were taken into study, so during the one year period there were 48 patients showed positive on smear. All details of the patients like age, sex, type of

malaria, clinical features etc. all such details were entered to excel sheets and analyzed by excel software for windows 10.

## RESULT

**Table 1:** Distribution of the patients as per the age

Age	No.	Percentage (%)
20-30	15	31.25
30-40	11	22.92
40-50	9	18.75
50-60	8	16.67
>60	5	10.42
<b>Total</b>	<b>48</b>	<b>100.00</b>

The majority of the patients were in the age group of 20-30 were 31.25%, 30-40 were 22.92%, 40-50- 18.75%, 50-60- 16.67%, >60 were 10.42%.

**Table 2:** Distribution of the patients as per the sex

Sex	No.	Percentage (%)
Male	28	58.33
Female	20	41.67
<b>Total</b>	<b>48</b>	<b>100.00</b>

The majority of the patients were Male i.e. 58.33%, Female were 41.67%

**Table 3:** Distribution of the patients as per the Species on peripheral smear

Species	No.	Percentage (%)
Pl.Falciparum	12	25.00
Pl.Vivax	31	64.58
Mixed	5	10.42
<b>Total</b>	<b>48</b>	<b>100.00</b>

The majority of the patients were Pl.Vivax- 64.58%, Pl.Falciparum -25.00%, Mixed -10.42%.

**Table 4:** Distribution of the patients as per the Clinical features

Clinical features	No.	Percentage (%)
Fever	48	100%
Vomiting	41	85%
Headache	40	83%
Myalgia	37	78%
Joint pain	36	75%
Jaundice	35	73%
Pain abdomen	31	64%
Diarrhoea	23	48%
Oliguria	6	13%
Cough and Breathlessness	4	9%
Impaired consciousness	1	3%
<b>Signs</b>		
Splenomegaly	36	75%
Pallor	30	63%
Icterus	21	43%
Hepatomegaly	15	31%
Petechiae	3	7%
Altered sensorium	2	5%
Convulsion	1	3%

The most common symptoms were Fever-100%, Vomiting-85%, Headache- 83%, Myalgia- 78% Joint pain- 75%, Jaundice- 73%, Pain abdomen- 64%, Diarrhoea- 48%, Cough and Breathlessness- 13% Oliguria- 9%, Impaired consciousness- 3%. Most common **Signs** were, Splenomegaly- 75%, Pallor- 63%, Icterus in 43%, Hepatomegaly- 31%, Petechiae in 7%, Altered sensorium- 5% Convulsion- 3%

## DISCUSSION

Malaria continues to be one of the important public health problems in India. As per World Health Organization report 2015, South East Asian Region bears the second largest burden of malaria (10%), only being next to African region (88%). Malaria caused 214 million infections and 438000 deaths worldwide, most of them occurred in the Africa region (90%) followed by SEA Region (7%).<sup>6</sup> Malaria is caused by protozoan parasite of genus plasmodium. Five species of the plasmodium *P. Falciparum*, *P. Vivax*, *P. Ovale*, *P. Malariae* and *P. Knowlesi* cause malaria in humans. Infection is initiated when sporozoites from the salivary glands of a female anopheles mosquito are inoculated during a blood meal into the human blood stream.<sup>4</sup> The common clinical manifestation are fever with chills and rigors, headache, vomiting, jaundice and common sign being splenomegaly, pallor, and icterus.<sup>7,8-9</sup> Infection with *P. falciparum* is more serious than infections with other malarial species owing to the high frequency of severe complications. In *P. falciparum* malaria, parasite density is directly correlated with the severity of clinical disease. Patients with high parasite counts have more severe and complicated courses.<sup>10,11</sup> In this study, the major symptoms observed were fever, followed by nausea and vomiting, headache, jaundice, cough, pain in the abdomen, impaired consciousness, and oliguria or anuria. Shaikh et al.<sup>12</sup> reported fever in all patients, rigor in 96% of patients, and vomiting and headache in 62% of patients. Ali et al.<sup>13</sup> also observed fever in 100% of cases. Murthy et al.<sup>14</sup> reported fever with chills and rigor (98.10%), altered sensorium (48.10%), algid malaria (18.35%), and jaundice (27.12%). In our study we have seen that the majority of the patients were in the age group of 20-30 were 31.25%, 30-40 were 22.92%, 40-50- 18.75%, 50-60- 16.67%, >60 were 10.42%. The majority of the patients were Male i.e. 58.33%, Female were 41.67%. The majority of the patients were Pl.Vivax- 64.58%, Pl.Falciparum -25.00%, Mixed - 10.42% The most common symptoms were Fever-100%, Vomiting-85%, Headache- 83%, Myalgia- 78% Joint pain- 75%, Jaundice- 73%, Pain abdomen- 64%, Diarrhoea- 48%, Cough and Breathlessness- 13% Oliguria- 9%, Impaired consciousness- 3%. Most common **Signs** were, Splenomegaly- 75%, Pallor- 63%, Icterus in 43%,

Hepatomegaly- 31%, Petechiae in 7%, Altered sensorium- 5%. Convulsion- 3%. Shivcharan Jelia<sup>15</sup> they found that predominant symptoms were fever (100%), vomiting (52%), headache (34%), myalgia (28%) and jaundice (27%) and signs were splenomegaly (75%), pallor (57%), icterus (28%), hepato-splenomegaly (19%), and hepatomegaly (04%). In this study, 82% patients suffered from uncomplicated malaria and 18% from complicated malaria.

## CONCLUSION

It can be concluded that majority of the patients were in the age group of 20-30 The majority of the patients were Male. The majority of the patients were P.Vivax , The most common symptoms were Fever, Vomiting , Headache, Myalgia , Joint pain, the most common Signs were , Splenomegaly, Pallor, Icterus, Hepatomegaly.

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