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TO STUDY THE DIFFERENT CLINICAL PRESENTATION OF MALARIA

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Abstract

Method: This study was done at Department Of Medicine. All patients admitted with malaria in tertiary care Centre during the study period August 2017 to July 2018 were taken for the study after considering the inclusion and exclusion criteria. Our study is a clinical, prospective, observational and open study.

Result: Fever occurred in all patients, and it was intermittent in 72.5% of the cases, continuous in 17.5% of the cases and remittent in the remaining 10%. Intermittent fever is the commonest. All 100% patients had chills and rigors. Most of the Patients (65%) had presented with acute illness of 2- 10 days duration of fever. Bifrontal dull aching to throbbing headache associated with fever was presenting clinical symptoms in 92% of patients. Most of the patients complained of generalized weakness, malaise and myalgia. Cerebral manifestation is seen in 10% of patients. Spleenomegaly was predominant in 64% of patients and 40% patient had hepatomegaly. Patient with mixed infection had more propensity to develop systemic complication.

Conclusion: Malaria is an age-old disease of mankind, caused by protozoal plasmodium and transmitted by anopheles mosquito. It is prevalent throughout most tropical countries. Both species are commonly presented with symptoms of intermittent Fever, chills, Bi-frontal headache, vomiting and commonly clinical feature is splenomegaly. Severe complication like anemia, thrombocytopenia jaundice, acute renal failure and sometimes life threatening cerebral malaria are need to address promptly to avoid adverse outcome.

Keywords: Clinical, Malaria, WHO & Presentation.

Introduction

William Osler has said that "Humanity has got 3 great enemies; fever, famine, and war; of these by far the greatest, by far the most terrible is fever" Malaria is the oldest disease recorded worldwide in human beings. It is parasitic disease of humans transmitted by female anopheles mosquitoes. It is transmitted in 108 countries containing 3 billion people and causes nearly 1 million death each year .Malaria has been eliminated from United States, Canada, Europe and Russia in late 20th and early 21st century.[1]

In India, 2.5 to 3 million cases and 1000 deaths of malaria are reported annually and had an estimated 10.6 million malaria cases in 2006 that account for approximately 60% of cases in the WHO (World Health Organisation) South-East Asia Region.[2]

Malaria in India is responsible for economic loss between US $ 0.5 to 1.0 billion annually. The parasitic profile has changed significantly over the years with a steady rise in percentage of Plasmodium Falciparum (P. falciparum) cases across the country (50.5% of cases in 2005).[3] Areas with more than 30% of P. falciparum cases are categorized as high risk. These include North East India, Orissa, Jharkhand, West Bengal, Madhya Pradesh, Maharashtra & Andhra Pradesh.[4]

Material & Method

This study was done at Department of Medicine of Tertiary Health Care Center in Western India, Ahmedabad Gujarat. All patients admitted with malaria in tertiary care Centre during the study period August 2017 to July 2018 were taken for the study after considering the inclusion and exclusion criteria. Our study is a clinical, prospective, observational and open study. Each patient was studied in detail with relevant clinical history and examination with following various investigations like peripheral smear for malarial parasite, complete blood count, renal function test , liver function test ,blood sugar level, USG abdomen ,chest x-ray , urine routine and micro and some special investigations like arterial blood gas analysis, bleeding profile,G6PD activity.

Inclusion and Exclusion criteria

INCLUSION CRITERIA

- All the patients having fever and who had Malaria positive by RDT or by peripheral smear and had any one of the complication of malaria and who are classified as severe malaria as per WHO guidelines[4-5]

- Age >13 year
- Patient giving consent for the study

EXCLUSION CRITERIA

- Age<13 years
- Who do not give consent
- Patient with comorbid conditions such as diabetes, hypertension, Koch's and pre-existingrenal, heart, pulmonologic ailments and seizure disorder were excluded from study.

Results

Table 1: Age distribution

AGE(YEAR)	NUMBER OF CASES
15-25	9(18%)
25-35	12(24%)
35-45	10(20%)
45-55	11(22%)
55-65	5 (10%)
>65	3 (6%)

MEAN AGE – 27.5yrs (RANGE – 15 to 70Yrs)

Maximum numbers of patients (22%) were seen in age group between 25-45 years of age and lowest number of patients were seen in age group 55-70years.

CLINICAL PROFILE

Table 2: Clinical features

CLINICAL FEATURE	P.VIVAX (n=30)	P.FALCIPARUM (n=14)	MIXED (n=6)	TOTAL (n=50)
FEVER	30(100%)	14(100%)	6(100%)	50(100%)
HEADACHE	26(86.67%)	14(100%)	6(100%)	46(92%)
CHILLS	30(100%)	14(100%)	5(100%)	50(100%)
MYALGIA	12(40%)	6(42.8%)	3(50%)	21(42%)
VOMITING	15(50%)	18(15%)	4(66.67%)	25(50%)
OLIGURIA	12(14%)	8(57.14%)	6(100%)	26(52%)
DISORIENTATION	0(0%)	2(14.28%)	3(50%)	5(10%)
SEIZURES	0(0%)	2(14.28%)	2(33.33%)	4(8%)
JAUNDICE	12(40%)	7(50%)	4(66.67%)	23(46%)
SPLENOMEGALY	18(60%)	8(57.14%)	6(100%)	32(64%)
HEPATOMEGALY	10(33.33%)	5(35.14%)	5(83.33%)	20(40%)

Fever occurred in all patients, and it was intermittent in 72.5% of the cases, continuous in 17.5% of the cases and remittent in the remaining 10%. Intermittent fever is the commonest. All 100% patients had chills and rigors. Most of the Patients (65%) had presented with acute illness of 2-10 days duration of fever. Bifrontal dull aching to throbbing headache associated with fever was presenting clinical symptoms in 92% of patients. Most of the patients complained of generalized weakness, malaise and myalgia. Cerebral manifestation is seen in 10% of patients. Spleenomegaly was predominant in 64% of patients and 40% patient had hepatomegaly. Patient with mixed infection had more propensity to develop systemic complication.

Table 3: Altered Liver function test in complicated malaria

LIVER PROFILE	P.VIVAX (n=30)	P.FALCIPARUM (n=14)	MIXED (n=6)	TOTAL (n=50)
BILIRUBIN(TOTAL>3mg/dl)	12(40%)	7(50%)	4(66.67%)	23(46%)
SGPT(>40mg/dl) & SGOT(>40mg/dl)	12(40%)	7(50%)	4(66.67%)	23(46%)

S.bilirubin of > 3 mg/dl was seen in 23 (46%)patients with complicated malaria, in which 40% patients had complicated P.vivax malaria while in complicated P.falciparum it was raised in 50% patient which shows that complications related to hepatic injury are more in P.falciparum than in P.vivax. The maximum S.bilirubin was 18gm/dl.

Discussion

In India, 7 to 8 lakh cases and 300 to 600 deaths of malaria are reported annually.[2]

Many consider this is an underestimate. Areas with more than 1 case per 1000 population are categorized as high transmission zone. These include North East India, Orissa, Jharkhand, West Bengal, Madhya Pradesh, Maharashtra & Andhra Pradesh.[6]

Total of 50 cases of complicated Malaria admitted to tertiary care centre from August 2017 to August 2018 were analysed.[7]

Plasmodium vivax occurred in 30 (60%) and Plasmodium falciparum occurred in 14 (128%) patients and 6 (12%) were mixed. There were 33 (66%) males and 17 (34%) females with a ratio 1.94:1. Mean age of presentation was 27.5 years (range 15 to 70 years).

About 62% of patients were in the age group of 15 to 45 years.

In the present study, it was commonly seen in the age group 15-25 years with a mean age of 27.5 years.

Table 4: Mean age:

Study series	Mean
Rickman et al (1989)[61]	30.6
Kodsinghe et a l(1997)[62]	26
Present study	27.5

Malaria affects all ages. But due to small sample size we cannot conclude about common age group.

Males are more frequently exposed to the risk of acquiring malaria than females, in our study there were 33 males and 17 females affected with a ratio 1.94:1.

The parasitic profile noted was 60% PV &28% PF in our study, and 12% were mixed malarial infection.[8]

Conclusion

Malaria is an age-old disease of mankind, caused by protozoal plasmodium and transmitted by anopheles

mosquito. It is prevalent throughout most tropical countries.

Both species are commonly presented with symptoms of intermittent Fever, chills, Bi-frontal headache, vomiting and commonly clinical feature is splenomegaly. Severe complication like anemia, thrombocytopenia jaundice, acute renal failure and sometimes life threatening cerebral malaria are need to address promptly to avoid adverse outcome.

References

1. WHO. WHO Expert committee on Malaria; Twentieth report 1998. Geneva, Switzerland 2000.
2. Malaria In: Park's Text book of preventive & social Medicine Ed K Park, 19th edn.2007;201-19.
3. Fauci AS, Kasper DL, Longo DL, Braunwald E, Hauser SL, Jameson JL, etal.Malaria. In: Osler W, editor. Harrison's principles of internal medicine. 19thed. New York: McGraw Hill; 2011. p. 1688-1705.
4. Mandell GL, Bennett JE, Dolin R. Plasmodium species. In: Krogstad DJ, editor. Mandell, Douglas and Bennett's principles and practice of infectious diseases.5th Ed. Philadelphia: Churchill Livingstone, an Imprint of Elsevier; 2000. p. 2817-30.
5. Sanchetee PC, Varma PP. Cerebral malaria. J AssocPhysicians India 1996 Oct;44(10):675-6.
6. Jain, Avinash C. Nagpal, Pradeep K. Joel, ManmohanShukla, Mrigendra P. Singh, Rasik B. Gupta, Aditya P. Dash, Saroj K. Mishra, Venkatachalam Udhayakumar, Jonathan K. Stiles, and
7. Neeru Singh*,Am. J. Trop. Med. Hyg., 79(4), 2008, pp. 636– 64.
8. Patil BS, Swamy HM, Shankarappa RS. Clinical study of falciparum malaria JAPI 2000; 48(1): 109.