

Study of 100 Cases of Complicated Plasmodium Falciparum Malaria



Medical Science

KEYWORDS : P. FALCIPARUM MALARIA, FEVER, INJ. ARTESUNATE

Dr.Sunita J. Solanki Assistant professor, Dept. of medicine

Dr.Reena Shah Assistant professor, Dept. of medicine

Dr.Saurabhpatel 3rd year resident, Dept. of medicine

Dr.Neeraj Singh 2nd year resident, Dept. of medicine

ABSTRACT

INTRODUCTION

Malaria is an important cause of illness & death in children & adults, especially in tropical countries. In India, about 2 million confirmed malaria cases & 1000 deaths are reported annually, although 15 million cases & 20000 deaths are estimated by WHO SEA regional office. India contributes 77% of total malaria in SEA

AIMS & OBJECTIVES

- 1) To study in-depth various complications of P.falciparum malaria
- 2) To evaluate various manifestations of severe P.falciparum malaria
- 3) To find out outcome of patient with complicated Falciparum malaria

MATERIALS AND METHODS

The present study includes 100 patients of complicated P.Falciparum malaria admitted in our hospital during period of May 2011 to November 2012.

Cases were selected on following criteria

- 1) All patients with age>12years irrespective of gender with severe manifestations of P.Falciparum malaria
- 2) Presence of asexual P.Falciparum parasite on peripheral smear examination.

CONCLUSION

- Common single complications were Jaundice , anaemia, cerebral malaria.
- Multiple complications that were common are Jaundice + ARF , cerebral malaria + jaundice + ARF + anaemia and cerebral malaria + jaundice + ARF.

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Case fatality in people infected with falciparum malaria receiving treatment is typically 10-20%. However in untreated patients, severe malaria is fatal in majority of cases.

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Patient with positive peripheral smear examination of P.Falciparum but without complications were excluded from study.

In all patients, detailed history was taken and clinical examina-

tion was done. In general examination, temperature, pulse, BP, respiratory rate, pallor, icterus, and in systemic examination, splenomegaly, hepatomegaly, altered sensorium were examined.

All patients underwent following investigations

- 1) Haemoglobin (gm%)
- 2) Total count
- 3) Platelet count
- 4) Ps for malarial parasite
- 5) Rbs
- 6) Renal function tests- blood urea, S.Creatinine, S.Electrolytes
- 7) Liver function tests
- 8) Urine routine and microscopic examination
- 9) ECG and chest X-ray PA view

All patients were given injectable antimalarial drug as early as possible

- Inj. Artesunate (2.4mg/kg) IV stat followed by Inj. Artesunate (2.4mg/kg) 12 hr and at 24 hr, later daily if necessary.
- Combined with oral Cap. Doxycycline (3mg/kg) once daily
- Once patient were able to take orally, Inj. Artesunate changed to oral therapy

OBSERVATION

1. AGE DISTRIBUTION

AGE	PRESENT STUDY NO. OF PATIENTS (%)
12-20	19
21-30	38
31-40	22
41-50	12
>50	9

All patients had fever in the present study. Other common symp-

toms were headache (90%), vomiting (65%), jaundice (35%), while altered sensorium was present only in 10% of patients. On examination, splenomegaly (70%), pallor (60%), icterus (44%), hepatomegaly (14%) was found.

In present study, jaundice (26%), anaemia (12%), cerebral malaria (2%) are common as single complication.

Multiple complications that were common are Jaundice + ARF (15%), cerebral malaria + jaundice + ARF + anaemia (1%) and cerebral malaria + jaundice + ARF (1%).

Hypoglycaemia and electrolyte imbalance was seen in 2% patients in present study. S. bilirubin >2mg% was found in 50% patients. Hepatic enzymes are not significantly increased in present study.

8 cases were expired in this study.

CONCLUSIONS

In present study, 100 patients with *P. falciparum* malaria were included with various complications.

- Maximum patients were in 21-30 years age group with mean age of 32.03 years
- Males were affected more than females with ratio 2.78:1
- All patients presented with fever. In 90% patients, fever was

2-10 days in duration. Majority of patients with high grade, intermittent fever with chills and rigors.

- Other common symptoms were headache (90%), vomiting (65%), yellowish sclera and urine (33%), altered sensorium (11%), convulsion (3%), oliguria (8%) and bleeding tendency (1%).
- Splenomegaly (70%), pallor (60%) were present in more than half of patients, other signs were icterus (44%), hepatomegaly (14%).
- Common single complications were Jaundice (26%), anaemia (12%), cerebral malaria (2%).
- Multiple complications that were common are Jaundice + ARF (15%), cerebral malaria + jaundice + ARF + anaemia (1%) and cerebral malaria + jaundice + ARF (1%).
- Only 1 patient developed ARDS and he was expired, so mortality was 100 % if patient develops ARDS in present study.
- Drugs like heparin, low molecular dextran, urea, high dose corticosteroids, adrenaline should not be given in malaria.
- Shock, marked agitation, deep coma, bleeding, anuria were poor prognostic signs in severe *plasmodium falciparum* malaria
- All patients should be given a broad spectrum antibiotic to prevent supradadded bacterial infections as bacterial infection may cause unexpected deterioration of malaria infected patients.
- Artesunate is still drug of choice for complicated malaria and it should not be given as a monotherapy as this will promote resistance to this class of antimalarials