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Research Article

CLINICAL MANIFESTATIONS OF FALCIPARUM MALARIA¹Dr. Ghulam Shabir Laghari, ²Dr. Naveed Aslam Lashari, ³Dr. Imran Karim⁴Dr. Hamid Nawaz Ali Memon, ³Dr. Almas Jahejo and ⁵Dr. Ali Raza Shaikh¹ Department of Pediatrics, Liaquat University of Medical and Health Sciences (LUMHS)
Jamshoro²Medical Specialist PAF Hospital Lahore³Liaquat University of Medical and Health Sciences (LUMHS) Jamshoro⁴Zulekha Hospital Dubai United Arab Emirates⁵Liaquat University Hospital Hyderabad / Jamshoro**Abstract:****OBJECTIVE:** To determine the clinical manifestations of children with falciparum malaria**PATIENTS AND METHODS:** The six months cross sectional study was conducted on children with falciparum malaria of either gender having history of fever for last five days with peripheral smear (thick /thin) or immunochromatographic antigen detection assay positive for plasmodium falciparum. Detailed physical examination included assessment of general physical condition, vital parameters, anthropometry, pallor and jaundice. Systemic examination included central nervous system, respiratory, cardiovascular system and abdominal examination to assess hepatomegaly and splenomegaly while all the relevant investigations were advised according while the frequency / percentages (%) and means \pm SD computed for study variables.**RESULTS:** During six month study period total fifty children had falciparum infections were explored thoroughly. The frequency for male and female population was 35 (70%) and 15 (30%) with mean \pm SD for age of male and female individuals was 33.87 \pm 9.724 (months) and 37.87 \pm 6.95 (months) respectively. Gender male 35 (70%), female 15 (30%), residence urban 17 (34%) and rural 33 (66%) while the clinical manifestations includes cerebral malaria 20 (40%), respiratory distress 25 (50%), convulsions 28 (56%), acidosis 11 (22%), severe anemia 37 (74%), hypoglycemia 20 (40%), renal failure 15 (30%), DIC 05 (10%), pulmonary edema 06 (12%), circulatory collapse 09 (18%), hyperparasitemia 06 (12%) and jaundice 08 (16%)**CONCLUSION:** Malaria has reemerged as a major public health problem while the severe anemia, convulsions, cerebral malaria, hypoglycemia and respiratory distress are the commonest manifestations of severe malaria.**KEYWORDS:** Malaria, falciparum and parasite**Corresponding author:***** Dr. Naveed Aslam Lashari,**Email: zulfikar229@hotmail.com

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INTRODUCTION:

Malaria is an intense and incessant ailment brought about by intracellular plasmodium protozoa transmitted to people by female anopheles mosquitoes [1]. It is described by eruptions of fever, chills, sweats, weakness, frailty and splenomegaly and has assumed a noteworthy job in mankind's history, having ostensibly made more damage a greater number of individuals than some other irresistible ailment [2]. Malaria is of overpowering significance in the creating scene today, with an expected 300 million cases and more than one million passings every year [3]. Most malarial passings happen in newborn children and youthful youngsters. Despite the fact that there has been a decrease in the all out number of malaria cases in Pakistan, plasmodium falciparum enrolled a noteworthy increment [4]. The mortality in intestinal sickness is because of plasmodium falciparum. The seriousness and clinical introduction of Plasmodium falciparum jungle fever rely upon the age of the patient, power of transmission and advancement of resistance [5]. In high transmission territories like sub-Saharan Africa kids endure the worst part of the sickness, with high mortality [6]. In territories of occasional and low transmission, death rates increment with age. Notwithstanding, this wonder isn't uniform and documentation of the clinical range of intestinal sickness from various land zones is required [7]. Conventional malarimetric lists generally center around parasitaemia. Network based investigations of the clinical highlights would be a perfect method to examine the illness, however as they are practically inconceivable in creating nations

medical clinic based examinations could give a reasonable option.

PATIENTS AND METHODS:

The six months cross sectional study was conducted on children with falciparum malaria of either gender having history of fever for last five days with peripheral smear (thick /thin) or immunochromatographic antigen detection assay positive for plasmodium falciparum while the exclusion criteria were children with pre-existing chronic systemic diseases, neuro bacterial infections, known cases of seizure disorders and known cases of febrile convulsions. Detailed physical examination included assessment of general physical condition, vital parameters, anthropometry, pallor and jaundice. Systemic examination included central nervous system, respiratory, cardiovascular system and abdominal examination to assess hepatomegaly and splenomegaly while all the relevant investigations were advised accordingly. All the data was collected on predesigned proforma while analyzed in SPSS to explore the frequencies, percentages and mean \pm SD.

RESULTS:

During six month study period total fifty children had falciparum infections were explored thoroughly. The frequency for male and female population was 35 (70%) and 15 (30%) with mean \pm SD for age of male and female individuals was 33.87 ± 9.724 (months) and 37.87 ± 6.95 (months) respectively. The demographical and clinical profile of study population is presented in Table 1.

TABLE 1: THE DEMOGRAPHICAL AND CLINICAL PROFILE OF STUDY POPULATION

AGE (months)	FREQUENCY (n=50)	PERCENTAGES (%)
06-10	07	14
11-20	09	18
21-29	12	24
30-29	11	22
40-49	04	8.0
50-59	03	6.0
60+	02	4.0
GENDER		
Male	35	70
Female	15	30
RESIDENCE		
Urban	17	34
Rural	33	66
MANIFESTATIONS		
Cerebral malaria	20	40
Respiratory distress	25	50
Convulsions	28	56
Acidosis	11	22
Severe anemia	37	74
Hypoglycemia	20	40
Renal failure	15	30
DIC	05	10
Pulmonary edema	06	12
Circulatory Collapse	09	18
Hyperparasitemia	06	12
Jaundice	08	16

DISCUSSION:

Malaria has been studied intensively in Pakistan since past many years. In the study by Sathpathy SK et al [8] 62.8% cases of severe malaria were above 5 years. In the study by Al-Taiar A et al [9] 36% of the cases were above 5 years. In the study by Mockenhaupt FP et al [10] 24% cases were above 4 years and rest below 4 years. The age distribution of cases depends on the endemicity of disease in that area. In areas of high endemicity, cases occur in younger age group. As endemicity decreases pattern shifts to older children. In a study by Satpathy SK et al [8] convulsions (46%) and cerebral malaria (40%) were the commonest manifestations followed by anemia (26%) and jaundice (36%). In a study by Al-Taiar A et al [9] it was noted that prostration (45%), respiratory distress (40%) and anemia (37%) were the commonest manifestations. In a study by Mockenhaupt FP et al [10] it was found that severe anemia (55%), acidosis (39%) and prostration (33%) were the commonest manifestations. The mortality was very less in our study and three patients presented

with cerebral malaria, severe anemia, circulatory collapse and multiorgan dysfunction during hospitalization. This indicated that multiorgan dysfunction with circulatory collapse carried poor prognosis as concluded by the other similar studies [11, 12] while the present study had lower mortality rate.

CONCLUSION:

Malaria has reemerged as a major public health problem while the severe anemia, convulsions, cerebral malaria, hypoglycemia and respiratory distress are the commonest manifestations of severe malaria.

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