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Research Article

Degree of Awareness of Malaria among Institutional Persons

Muhammad Imran Qadir & Iqra Rafique*

Institute of Molecular Biology and Biotechnology, Bahauddin Zakariya University, Multan, Pakistan. Email: iqra.rafique136@gmail.com

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ABSTRACT

The objective of the present study was to estimate the Degree of Awareness of Malaria among Institutional persons. Malaria is caused by parasite known as Plasmodium but the definite host is female Anopheles Mosquito. Its symptoms include abrupt onset of fever, chills, headache, nausea, vomiting and abdominal pain. According to Questionnaire, most of the Institutional persons think that Malaria is a metabolic disorder and it is not transmitted from parents to offspring. It can be treated by medicines to some extent.

Keywords: Awareness of Malaria, Parasitic disorder.

1. INTRODUCTION

Malaria is a disease caused by protozoa called "Plasmodium". Plasmodium has four types: Plasmodium Falciparum, Plasmodium Vivax, Plasmodium Ovale, and Plasmodium Malaria. Out of these Plasmodium Vivax and Falciparum are most common. The vector and definitive host is female Anopheles Mosquito. Its **life cycle** consists of two phases: Sexual phase in mosquito and Asexual phase in humans which further consists of: Extra-Erythrocytic (In Liver) and Erythrocytic (In RBCs). A latent phase also occurs in case of infections caused by Plasmodium Vivax and Ovale. This is due to Hypnozoites formed in liver which may cause infection after several months.

Pathogenesis: After mosquito bite, extra-Erythrocytic phase occurs. Then, merozoites of plasmodium enters in RBCs and causes the destruction of RBCs. This releases merozoites which kills other RBCs. This leads to extensive hemolysis and anemia. This may cause life threatening hemorrhage, necrosis particularly in brain (Cerebral Malaria) and kidney damage with hemoglobinuria. Black color of patient's urine give rise to term Blackwater fever. Hemoglobinuria can lead to acute renal failure. This Erythrocytic destruction occurs at regular intervals being 72 hours for plasmodium malaria and 48 hours for others. So infections caused by P. Malaria are called Quartan Malaria but the others are called Tertian malaria. Plasmodium falciparum causes far more destruction of RBCs than others and of all RBCs, immature or mature. This is why it is also called Malignant Malaria. While others cause destruction of RBCs in specific phase of lifecycle so called as Benign Malaria. **Resistance:** Humans with recessive "Duffy Blood Group Antigen Genes", "Glucose-6-phosphate Dehydrogenase Deficiency" or "Sickle Cell Anemia" are resistant to Malaria.

Clinical Findings: Malaria patients present with abrupt onset of fever, chills, headache, myalgia, and arthralgia. Fever is followed by shaking chills, nausea, vomiting and abdominal pain. After some period, there is extensive sweating, splenomegaly and hepatomegaly. There may be extensive brain damage called "Cerebral Malaria" or

renal failure accompanied by by "Blackwater Fever" due to hemolysis. It is usually self-limited but mortality rate is higher with plasmodium falciparum.

Laboratory Diagnosis: It is done by using both thick and thin Geimsa stained smear. Thick stain to confirm the presence of organism and Thin stain to identify the type of species. The most specific microscopic finding is Ring-shaped trophozoite in the infected RBC. Crescent shaped gametocytes of P. falciparum are also seen in RBCs. PCR & Elisa are also available. Hemozoin pigment is also present in some cases. Schaffner's dots are seen in RBC when stained with Romanowsky stain in case of P. ovale and P. Vivax.

Treatment: Partial immunity is available based on humoral antibodies that cause low level of parasitemia which is called "Premunition". The ultimate treatment is Chloroquine and in case of latent infection Primaquine. Chloroquine resistant strains of P. Falciparum are treated with Artesunate, Quinidine, Malarone Mefloquine, Atovaquine or Doxycycline.

The objective of the present study was to estimate the Degree of Awareness of Malaria among Institutional Persons.

2. MATERIALS AND METHOD

In this Research process, A Questionnaire was planned to estimate the Degree of Awareness of Malaria among Institutional Persons and 65 persons took part in this research i.e. 11 Males and 54 Females.

Table 1: Questionnaire to estimate the Degree of Awareness of Malaria among Institutional Persons

Malaria is a?	**YES**	**NO**
1.Viral Disease		
2.Bacterial Disease		
3.Fungal Disease		
4.Genetic Disease		
5.Metabolic Disease		
Ever Suffered from Malaria?		
6.You		
7.Your Family Member		
8.Your Relative		
9.Your Neighbor		
10.Your Friend		
Malaria is transmitted by?		
11.Contacts or Blood transfusion		
12.From Parents to Offspring		

Malaria may be treated by?		
13.Medicines		
14.Surgery		
15.No need of Treatment		

3. RESULTS AND DISCUSSION

Table 2: Questionnaire to estimate the Degree of Awareness of Malaria among Institutional Persons

Malaria is a?	Male (%)		Female (%)		Total (%)	
	Yes	No	Yes	No	Yes	No
1.Viral Disease	54.54%	45.46%	35.18%	64.82%	38.46%	61.54%
2.Bacterial Disease	45.45%	54.55%	16.66%	83.34%	21.53%	78.47%
3.Fungal Disease	9.09%	90.91%	3.70%	96.3%	4.61%	95.39
4.Genetic Disease	0.00%	0.00%	1.85%	98.15%	1.53%	98.47%
5.Metabolic Disease	0.00%	100%	62.96%	37.04%	52.30%	47.7%

The estimation of the degree of awareness of Malaria among Institutional persons is given in this table in the form of percentage. For example, almost 65 persons took part in this research and 52.30% persons think that Malaria is a metabolic disease while 47.7% persons think that Malaria is not a metabolic disease.

Table 3: Questionnaire to analyze the Degree of Awareness about suffering from Malaria among Institutional Persons

Ever suffered from Malaria?	Male (%)		Female (%)		Total (%)	
	Yes	No	Yes	No	Yes	No
6.You	0.00%	100%	25.92%	74.08%%	21.53%	78.47%
7.Your Family Member	18.18%	81.82%	35.18%	64.82%	32.30%	67.70%
8.Your Relative	9.09%	90.91%	42.59%	57.41%	36.92%	63.08%
9.Your Neighbor	9.09%	90.91%	38.88%	61.12%	33.84%	66.16%
10.Your Friend	9.09%	90.91%	40.74%	59.26%	35.38%	64.62%

The analysis of the degree of awareness about suffering from Malaria among Institutional persons is given in this table in the form of percentage. For example, almost 65 persons took part in this research and 21.53% persons suffered from Malaria while others not.

Table 4: Questionnaire to evaluate the Degree of Awareness of prevalence of Malaria among Institutional Persons

Malaria is prevailed by?	Male (%)		Female (%)		Total (%)	
	Yes	No	Yes	No	Yes	No
11.Contacts or Blood Transfusion	18.18%	81.82%	22.22%	77.78%	21.53%	78.47%
12.From Parents to Offspring	9.09%	90.91%	5.55%	94.45%	6.15%	93.85%

The evaluation of the degree of awareness of prevalence of Malaria among Institutional Persons is given in this table in the form of percentage. For example, 6.15% persons evaluated that Malaria is transmitted from parents to offspring while 93.85% evaluated that Malaria is not transmitted from parents to offspring.

Table 5: Questionnaire to judge the Degree of Awareness of Medication of Malaria among Institutional Persons

Malaria is medicated by?	Male (%)		Female (%)		Total (%)	
	Yes	No	Yes	No	Yes	No
13.Medicines	90.90%	9.1%	92.59%	7.41%	92.30%	7.7%
14.Surgery	0.00%	100%	0.00%	100%	0.00%	100%
15.No need of Treatment	9.1%	90.90%	7.41%	92.59%	7.7%	92.30%

The estimation of the degree of awareness of Medication of Malaria among Institutional persons is given in this table in the form of percentage. For example, 65 persons took part in this research and 92.30% think that Malaria needs treatment while others think that Malaria needs no treatment.

4. CONCLUSION

According to this research, Malaria is a metabolic disorder and Plasmodium is the cause of Malaria. It is not transmitted from parents to offspring. Malaria is not common among Institutional Persons and can be treated by Medicines to some extent.

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