Occurrence Of Malaria In Khwazakhela District Swat Pakistan

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A B S T R A C T

Aim of the current study was to find out the occurrence of malaria among the local population visited to health care center and aware the peoples about malarial disease and update its epidemiology. The present survey was conducted in Civil Government Hospital Khwazakhela district Swat Khyber Pakhtunkhwa Pakistan during September to October 2013. A descriptive study was design and the data were collected from the respective hospital. The total 198 samples were collected. The gender distribution shows that the male are more infected than female 123 (62.12%) and 75 (37.88%) respectively. The age wise analysis shows that the majority of cases 69 (34.85%) were reported in age group 1-10 years, while the lowest cases 3 (1.52%) was recorded in age group 51-60 years. Awareness regarding the disease, early treatment and protective measure are necessary to control the disease.

Introduction

Plasmodium is a single celled parasite, responsible for causing malaria. It has more than 100 species, produce malaria in birds, animals and humans, etc. Plasmodium species which commonly infect humans has a specific look under microscopic examination. The four species are P. falciparum, P. malariae, P. ovale, P. vivax. The most common plasmodium is P. falciparum (~75%) followed by P. vivax (~20%) (Collins, 2012). The symptoms of malarial disease usually start from 8-25 days after bite. The common symptom of the malaria is fever, weakness, malaise, nausea, vomiting, diarrhea, headache, back pain, chills, and cough. Due to similarities of symptoms malaria can be confused with many other diseases including flu, dengue, typhoid, blood poisoning, viral hemorrhagic fevers and meningitis. Sometime some neurologic complains such as confusion, dizziness, disorientation and comas can also be seen. The diagnosis of malarial infection should also be considered in any patient with fever of unknown origin (Nadjm et al., 2012). Treatment for malarial infection should not be started until the presence of malarial parasites has been confirmed by laboratory tests. Malarial parasites can be detected from the examination of thin and thick blood smears through microscope (Planche et al., 2001).

Globally about 2 billion people are at risk for malarial disease. Per annum about 0.3 to 0.5 billion cases and 0.02 billion deaths are estimated. Since long time ago malaria has been a reality of death and life. Like other countries also in Pakistan, it is an important problem and cause of mortality (Taylor et al., 2000). In Pakistan the transmission of malaria mainly occur after the July-August monsoon, malarial infection has been reported. Per year in Pakistan roughly 0.05 billion malarial clinical cases have been estimated (Donnelly et al., 1997). The prevention of malaria includes medication, elimination of mosquito and prevention of bites. Malarial presence in a specific area depends upon the density of human population and anopheles mosquito population (Sabot et al., 2010).

Methodology

The ethical authority of the hospital approved the current study. The aim of the present study was to find out the occurrence of malaria among the local population visited to health care center and aware the peoples about malarial disease and
update its epidemiology. The present study was conducted in Civil Government Hospital Khwazakhela, district Swat Khyber Pakhtunkhwa Pakistan, during September to October 2013. The cross sectional study was design and the data were collected from the hospital.

**Result and discussion**

The total 198 positive samples were collected. The gender wise distribution shows that the male are more susceptible to get disease as compare to female 123 (62.12%) and 75 (37.88%) respectively as shown in figure 1. The result of our study is comparable with Ahmad et al., (2013) reported the 58.7% male were infected from malaria in Lal Qilla, Khyber Pakhtunkhwa Pakistan. According to Bikha et al., (2009) and Ansar et al., (2010) reported high number of cases in male population as compare to female population. The possible reason for high number of cases in males is, they work in the field and not fully covered their body and have chance of infection as compare to female (Ahmad et al., 2013).

![Figure 1. Gender wise distribution of positive cases in Khwazakhela, Swat](image1)

![Figure 2. Age wise distribution of positive cases in Khwazakhela, Swat](image2)

The present data was also analysis for the age wise distribution. For the age wise distribution the patients was placed in the following age groups include; age group 1: 0-10 years, age group 2: 11-20 years, age group 3: 21-30 years, age group 4: 31-40 years, age group 5: 41-50 years, age group 6: 51-60 years and age group 7: >60 years. The result shows that the high number of cases 69 (34.85%) was reported in age group 0-10 years followed by 55 (27.78%) in age group 11-20 years, 31 (15.66%) age group 21-30 years, 21 (10.60%) age group 31-40 years, 12 (6.06%) age group 41-50 years, 7 (3.53%) age group >60 years and 3 (1.52%) age group 51-60 years as shown in figure 2.
Conclusion
From the present study it was concluded that the male are more infected as compare to female population of Khwazakhela, district Swat. Where the age is concern the high number of cases was reported in children having age 0-10 years. For the control of the disease awareness, knowledge about disease, early treatment and preventive measure is necessary.

Competing interest
The author declares that they have no competing interest.

Acknowledgement
The authors are grateful to Mr. Asmat Ullah and Akhtar Ali, Lab Technician’s Government Civil Hospital Khwazakhela, district Swat, Khyber Pakhtunkhwa, Pakistan, and we also thankful to all the patients for their cooperation during this study.

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