

Knowledge, Attitude and Practices of School Going Children Towards Malaria

¹Tauseef Ahmad, ¹Anwar Ullah, ²Sikandar Khan Sherwani and ³Asia Neelam

¹Department of Microbiology, Hazara University Mansehra, Khyber Pukhtunkhwa, Pakistan

²Department of Microbiology, FUUAST Karachi, Pakistan

³Institute of Environmental Studies, University of Karachi, Pakistan

Submitted: Jan 5, 2014; **Accepted:** Feb 24, 2014; **Published:** Mar 12, 2014

Abstract: This is the first study conducted in the Usheri Public High School Tar PatarDir (Upper) Khyber Pakhtunkhwa Pakistan during October 2013. The aim of the study is to explore the knowledge of school going children about malaria. A cross sectional study was designed. For the collection of data a design questionnaire was used. The result shows that the school going children have less knowledge about malaria. The awareness and disease control program should be needed to eliminate the disease from this area.

Key words: Knowledge • Malaria • Questionnaire

INTRODUCTION

The malaria is an infectious disease with high a huge number of morbidity and mortality all over the world especially in the developing countries like Africa etc. The disease involving red blood cells and caused by protozoa parasites. The four common genus of the protozoa parasite are *Plasmodium vivax*, *Plasmodium malariae*, *Plasmodium falciparum* and *Plasmodium ovale* cause the malaria. The *plasmodium vivax* is the most common while the majority of deaths are due to *Plasmodium falciparum* [1]. In Africa it produces one million deaths every year. According to World Health Organization (WHO) approximately 200 million cases of malaria occurred every year all over the world along with 600,000 deaths. The majority of cases are occurred in the children having age below 5 years [2-5] and 20 out of 1 child are killed under the age of 5 year due to the malaria [6]. The resistivity of malaria with anti-malarial medicine cause difficulty to control malaria which leads the wide spread prevalence of malaria and its epidemic [7,8]. The aim of the present study is to explore the knowledge, attitude and practices/prevention of malaria in School going children.

MATERIALS AND METHODS

Study Area: This was the first study conducted in the Usheri Public High School Tar PatarDir (Upper) Khyber Pakhtunkhwa Pakistan. One of the beautiful district of the Khyber Pakhtunkhwa is Dir(Upper) lies in Hidukush range among 35° 10-35° 16 N latitude and 71° 50 to 71° 83 E longitudes having total area of 3699 KM². In the East district Swat, West Afghanistan while in the North of Dir Upper are rugged mountainous peaks rising from 1100 to 3119 meter.

Study Duration: The present study was carried out during October 2013. The respondents were interviewed during day time 9:00 AM to 1:00 PM.

Study Design: A cross sectional study was designed.

Data Collection: For the collection of data a standard design questionnaire was used including the demographic information and knowledge about the disease. The descriptive analysis of the data was done.

Table 1: The Knowledge, Attitude and Practices of the School going children of Tar PatarDir (Upper) towards malaria

| Variables | No of respondent | Percentage (%) |
|--|------------------|----------------|
| Gender | | |
| Boys | 47 | 52.81 |
| Girls | 42 | 47.19 |
| Symptom of malaria | | |
| Fever | 50 | 56.18 |
| Malaise | 22 | 24.72 |
| Headache | 9 | 10.11 |
| Chills | 8 | 8.99 |
| Arthralgis | 0 | 0 |
| Disease spread by mosquito | | |
| Malaria | 45 | 50.56% |
| Dengue | 32 | 39.96% |
| Cholera | 11 | 12.36 |
| Other | 1 | 1.12 |
| Season of abundant | | |
| Winter | 8 | 8.99 |
| Summer | 67 | 75.28 |
| Spring | 16 | 17.98 |
| Rainy | 0 | 0 |
| Place of bite | | |
| Hand | 42 | 47.19 |
| Feet | 18 | 20.22 |
| Face | 11 | 12.36 |
| Others | 19 | 21.35 |
| Source of mosquito | | |
| House | 16 | 17.98 |
| Field | 13 | 14.61 |
| Forest | 9 | 10.11 |
| Dirty water | 51 | 57.30 |
| Source of transmission | | |
| Mosquito | 31 | 34.83 |
| Air | 22 | 24.72 |
| Water | 29 | 32.58 |
| others | 7 | 7.87 |
| Future probability | | |
| High chance | 32 | 35.96 |
| Little chance | 23 | 25.84 |
| No concern | 34 | 38.20 |
| Prevention of malaria | | |
| Chemical | 36 | 40.45 |
| Mosquito net | 41 | 46.07 |
| others | 12 | 13.48 |
| Ever Gov or Non Gov organization spray | | |
| Yes | 0 | 0 |
| No | 100 | 100 |
| Ever Gov or Non Gov organization arrange the seminar on malaria | | |
| Yes | 0 | 0 |
| No | 100 | 100 |
| Source of information | | |
| Friends | 13 | 14.61 |
| TV/ Radio | 35 | 39.33 |
| Print media | 7 | 7.87 |
| Personal | 34 | 38.20 |

RESULTS AND DISCUSSIONS

The Table 1 showed the knowledge, attitude and practices of School going children Tar PatarDir (Upper) Khyber Pakhtunkhwa Pakistan. The total 89 respondent were interviewed having age between 12-16 years. The Out of the total 52.81% are boys and 47.19% are girls. The fever is the most common symptom of malaria along with malaise, headache and chills. The disease spread by mosquito are malaria, dengue and some of the participant also stated that the mosquito also spread the cholera. Summer is the most abundant season of malaria. The malaria mosquito bit on the hand, feet, face and other parts of the body. Dirty water is the common source of the malaria mosquito followed by houses, fields and forests. The results suggest that the malaria is transmitted through mosquito, water, air and others. The most of the participant show no concern with the malaria in future probability. Most of the participant stated that the use of mosquito nets can prevent the malaria spread, also by the use of chemical and others. The results shows that the Gov and Non Gov nor spray and not arrange the seminar/awareness program about malaria. TV/Radio and personal information is the common source of information. In Pakistan malaria prevail throughout the year but their incidence increase during the monsoon season, particularly between September and November [9], the other factor which is responsible of malaria in Pakistani is poverty and huge irrigation network [10]. Around the entire province 50, 00, 00 cases each year reported in Pakistan [11], in which 50,000 are die each year [12]. Cerebral malaria is common problem in North West Frontier Province (NWFP), Balochistan and Quetta [13].

CONCLUSIONS

It was concluded that the school going children of the Usheri Public High School Tar PatarDir (Upper) have less knowledge about the malaria. The awareness and disease control program should be needed to eliminate the disease from this area. We recommended further studies in this area.

ACKNOWLEDGEMENT

We are grateful to the Administration of Usheri Public High School Tar PatarDir (Upper) and also thankful to the participants.

REFERENCES

1. Ford, L.B., J.D. MacLean, T.W. Gyorkos, J.D. Ford and N.H. Ogden, 2009. Climate Change and Malaria in Canada: A System Approach. *Interdisciplinary Perspectives on Infectious Diseases*, Article ID 385487, pp: 1-13.
2. World Health Organization, 2011. World Malaria Report. Technical report, World Health Organization.
3. Barreca, A., 2010. The Long-term Economic Impact of In Utero and Postnatal Exposure to Malaria, *Journal of Human Resources*, 45: 865-892.
4. Bleakley, H., 2010. Malaria in the Americas: A Retrospective Analysis of Childhood Exposure,” *American Economic Journal: Applied*, 2: 1-45.
5. Percoco, M., 2011. The Fight against Geography: Malaria and Economic Development in Italian Regions, *FondazioneEni Enrico Mattei Global Challenges Papers*, Working Paper 558, Milan, Italy.
6. Goose, J., 1993. A new approach to malaria vector control. *Africa Health*, 16(1): 18-19.
7. Randrianarivelosoa, M., V.T. Rasidimanana, H. Rabarison, P.K. Cheplogoi, M. Ratsimbason, D.A. Mulholland and P. Mauclère, 2003. Plants traditionally prescribed to treat tazo (malaria) in the eastern region of Madagascar. *Malar. J.* 2, 25. <http://www.malariajournal.com/content/2/1/25>.
8. Ridley, R.G., 1997. Plasmodium: Drug discovery and development-an industrial perspective. *Exp. Parasitolo.*, 87: 293-304.
9. World Health Organization, 2005. World malaria report. Geneva.
10. World Health Organization, 1991. Basic malaria microscopy. WHO. Geneva, pp: 56-69.
11. Donnelly, M.J., F. Konradsen and M.H. Birly, 1997. Malaria treatment seeking behaviour in southern Punjab, Pakistan. *Ann. Trop Med Parasitol.*, 91: 665-7.
12. Etard, J.F., B. Kodio and C. Ronsmans, 2003. Seasonal variation in direct obstetric mortality in rural Senegal: role of malaria? *Am. J. Trop Med. Hyg.*, 68: 503-4.
13. Yasinzai, M.I. and J.K. Kakarsulemankhel, 2009. Incidence of human Malaria infection in Central Balochistan, Pakistan: District Bolan. *Biologia (Pakistan)*, 55(1 and 2): 43-50.