



ORIGINAL ARTICLE

Outbreak of Dengue in Khwazakhela District Swat during August- November 2013

Muhammad¹, Rahmat Ali², Sadeeq Akbar³, Imran Khan⁴ and Tauseef Ahmad*³

¹Centre of Biotechnology and Microbiology, University of Peshawar,

²Department of Pharmacy, University of Malakand,

³Department of Microbiology, Hazara University Mansehra,

⁴Department of Zoology, Kohat University of Science and Technology, Khyber Pakhtunkhwa, Pakistan.

*Address for Correspondence: E-mail: hamdardmicrobiologist@gmail.com

ABSTRACT

Dengue (DEN) is an arthropod born viral disease. Recently, worldwide the occurrence of dengue increased noticeable. In Pakistan the current outbreak is occurred in district Swat during August 2013. The aim of the present study was to find out the occurrence of dengue among the local population of Khwazakhela, district Swat, aware the peoples about the disease and update the epidemiology of dengue. The present study was conducted in the Civil Government Hospital Khwazakhela, district Swat. The cross sectional study was design and the data were collected from the admitted patients in the respective hospital. The total 96 samples were collected consist 70 male and 26 female. Out of the total the 67 (70%) were found positive for dengue. The result show that the male are more infected as compare to female 54 (81%) and 13 (19%) respectively. The age wise distribution shows that the high number of dengue cases were recorded in age group 20-39 years 37 (55.22%), while the low number of cases were found in age group >59 years 2 (3%). From the present study it was concluded that the dengue severely infect the male population as compare to female population of Khwazakhela, district Swat. Awareness regarding the disease, early treatment and protective measure are necessary to control the disease. We recommended further study in this regard.

Key Words: Epidemiology, Dengue, Arthropod.

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INTRODUCTION

Dengue is caused by dengue virus belong to genus Flavivirus belong to family Flaviviridae. In 1942, dengue virus was isolated by Hotta in Japan [1]. The dengue virus (DENV) has four serotypes dengue virus-1 (DENV-1), dengue virus-2 (DENV-1), dengue virus-3 (DENV-3) and dengue virus-4 (DENV-4). The dengue is spread by mosquitoes named *Aedes aegypti* and *Aedes Albopictus* [2]. Dengue virus causes primary and secondary infection. Primary infection is acute feverish illness known as dengue fever (DF) which mostly eliminate around in seven days by a composite immune response, while Secondary infection is additional rigorous and cause dengue haemorrhagic fever (DHF) or dengue shock syndrome (DSS). Both DHF and DSS are serious infections and can lead to death among patients. The common symptom fever, headache, myalgia, leucopenia, arthralgia and thrombocytopenia are the medical manifestations of Dengue fever [3,4]. Mostly dengue viruses affect children in Southeast Asia which are characterized by amplified vascular permeability, hemorrhagic manifestations, plasma leakage and thrombocytopenia. Pakistan is at high risk of dengue cases due to hazardous water, crowded cities, insufficient cleanliness, crowded cities, insufficient cleanliness, low vaccination coverage and huge number of refugees [5]. Worldwide approximately 50-100 million people were infecting annually along with 12,500 deaths [6]. In Pakistan more than 20,000 cases of dengue along with 300 deaths were reported in 2011 [7].

MATERIALS AND METHODS

The present study was approved by the ethical authority of the respective hospital. The aim of the present study was to find out the occurrence of dengue among the local population of Khwazakhela, district Swat, aware the peoples about the disease in and update the epidemiology of dengue. This study was conducted in the Civil Government Hospital Khwazakhela, district Swat, during August-November 2013. The cross sectional study was design. The data were collected from the admitted patients in the hospital. The descriptive analysis of the data was done.

RESULTS

The current outbreak of dengue occurred in Swat district infected thousand of peoples.

Gender wise distribution

In the present study the total 96 suspected cases of dengue were reported with a ratio of 70 (73%) male and 26 (27%) female. Out of the total 67 (70%) patients were positive for dengue while the 29 (30%) are negative. In the positive cases the 54 (81%) are male and 13 (19%) are female as shown in figure 1.

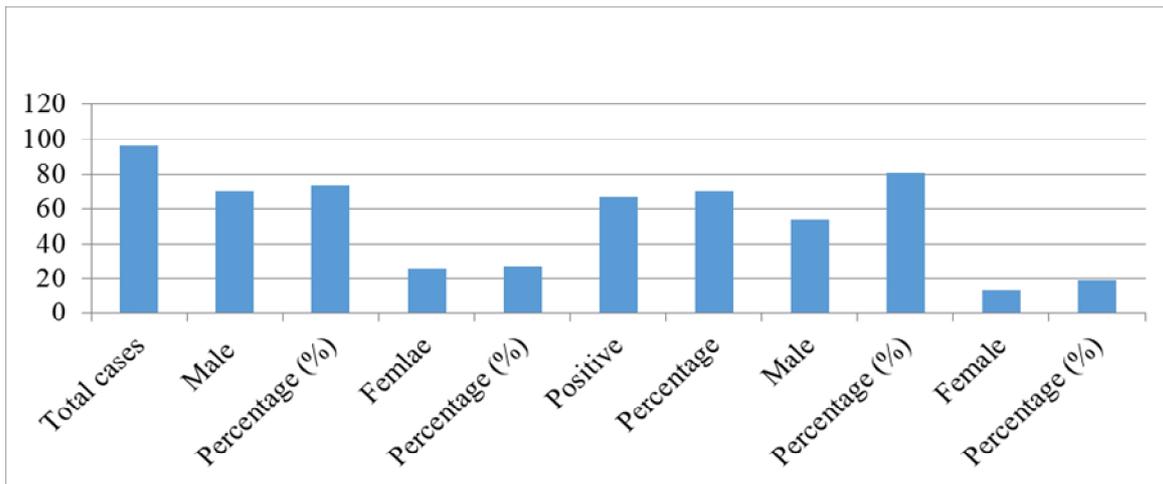


Figure 1: Gender wise distribution of suspected patients of dengue in Khwazakhela, district Swat

Age wise distribution

For the age wise distribution the suspected patients of dengue was divided in to four groups include; group 1: 0-19 years, group 2: 20-39 years, group 3: 40-59 years and group 4: >59 years. The age wise distribution shows that the maximum number of cases 37 (55.22%) was recorded in age group 2: 20-39 years followed by 17 (25.37%) in age group 1: 0-19 years, 11 (16.41%) in age group 3: 40-49 years and 2 (3%) in age group 4: >59 years as shown in figure 2.

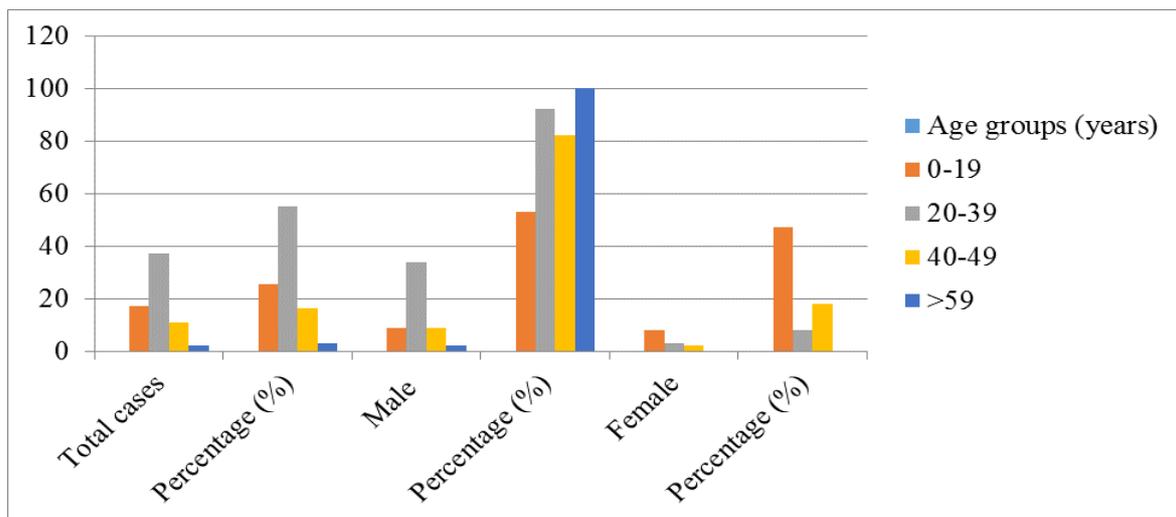


Figure 2: Age wise distribution of positive cases of dengue patients in Khwazakhela, district Swat

DISCUSSION

Dengue is a challenging disease world especially for the developing countries. In Pakistan dengue cause many outbreak in the last 20 years and currently the dengue outbreak is occurred in the district Swat, Pakistan. The total 96 suspected patients were admitted in the Civil Government Hospital Khwazakhela, district Swat. The non structural protein 1 (NSI) proteins were detected in the 67 (70%) patients and consider positive for dengue. The result is in line with Muhammad et al., [8] reported 82.37% cases of dengue in 2011 dengue epidemic in Pakistan. The male are infected by dengue as compare to female. The possible reason in the high number of dengue cases in male have traveling history to those area where the dengue incidence is high, not covered their body, lack of knowledge regarding the disease, lack of proper treatment facilities etc are those factor contributing the disease to spread more. The result shows that the dengue affected the most significant and productive age groups. The high number of cases was recorded in age group 20-39 years 55.22% where the low cases occurred in age group >59 years 3%. The Government and local health need to focus on the control of disease. If the proper measurements are not done so it will be affect a large population.

CONCLUSION

From the present study it was concluded that the dengue affected the most significant and productive age group of the said area. The ratio of occurrence of dengue is too much high in male as compare to female population. Awareness, knowledge about disease, early treatment and preventive measure is necessary for the control of the disease. We recommended further in this regards.

COMPETING INTEREST

The author declares that they have no competing interest.

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