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Research Article

**PREVALENCE OF DENGUE PATIENTS IN DIFFERENT
HOSPITALS**Dr Kanwal Shehzadi¹, Dr Shadma Zulfiqar², Dr Mahrukh Eeman Idrees³¹ Sir Gangaraam Hospital Lahore, ² Jinnah Hospital Lahore, ³ THQ Hospital Quaidabad**Article Received:** March 2020**Accepted:** April 2020**Published:** May 2020**Abstract:**

Dengue fever is a mosquito-borne tropical disease caused by the dengue virus. Symptoms typically begin three to fourteen days after infection. These may include a high fever, headache, vomiting, muscle and joint pains, and a characteristic skin rash. Recovery generally takes two to seven days. A total of 130 patients was included in the study. The mean age of the patients was 41.56 ± 2.87 years, mean age of the females was 39.23 ± 3.67 years and mean age of males was 43.31 ± 4.78 years. There were 70 [54%] females and 60 [46%] males in the study. Probable patients were those, whose IgG and IgM were negative. Confirm patients were those who IgG and IgM were positive. Out of 130, thirty patients were labelled as probable and 40 patients were labelled as confirm patients.

Keywords: *Dengue fever***Corresponding author:****Dr. Kanwal Shehzadi,***Sir Gangaraam Hospital Lahore.*

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INTRODUCTION:

Dengue fever is a mosquito-borne tropical disease caused by the dengue virus. Symptoms typically begin three to fourteen days after infection. These may include a high fever, headache, vomiting, muscle and joint pains, and a characteristic skin rash. Recovery generally takes two to seven days. In a small proportion of cases, the disease develops into severe dengue, also known as dengue hemorrhagic fever, resulting in bleeding, low levels of blood platelets and blood plasma leakage, or into dengue shock syndrome, where dangerously low blood pressure occurs [1,2].

Dengue is spread by several species of female mosquitoes of the *Aedes* type, principally *A. aegypti*. The virus has five types; infection with one type usually gives lifelong immunity to that type, but only short-term immunity to the others. Subsequent infection with a different type increases the risk of severe complications. A number of tests are available to confirm the diagnosis including detecting antibodies to the virus or its RNA.

A vaccine for dengue fever has been approved and is commercially available in a number of countries. As of 2018, the vaccine is only recommended in individuals who have been previously infected or, in populations with a high rate of prior infection by age nine. Other methods of prevention include reducing mosquito habitat and limiting exposure to bites. This may be done by getting rid of or covering standing water and wearing clothing that covers much of the body. Treatment of acute dengue is supportive and includes giving fluid either by mouth or intravenously for mild or moderate disease. For more severe cases, blood transfusion may be required. About half a million people require hospital admission every year. Paracetamol [acetaminophen] is recommended instead of nonsteroidal anti-inflammatory drugs [NSAIDs] for fever reduction

and pain relief in dengue due to an increased risk of bleeding from NSAID use [3-5].

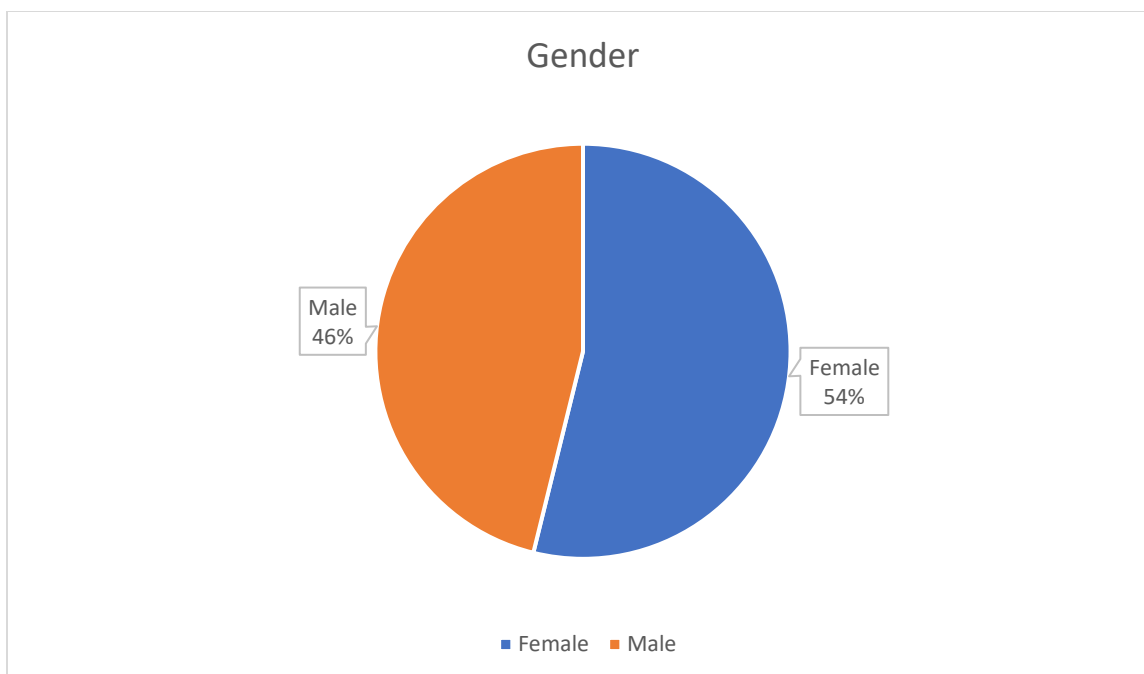
Dengue has become a global problem since the Second World War and is common in more than 120 countries, mainly in Asia and South America. About 390 million people are infected a year and approximately 40,000 die. In 2019 a significant increase in the number of cases was seen. The earliest descriptions of an outbreak date from 1779. Its viral cause and spread were understood by the early 20th century. Apart from eliminating the mosquitos, work is ongoing for medication targeted directly at the virus. It is classified as a neglected tropical disease [6,7].

MATERIAL AND METHODS:

This study was conducted in medicine and dengue departments of different hospitals. All the patients presenting with history of fever, body aches were included in this study. All these patients were labelled as suspected. Brief history, demographic data, and lab test of anti-dengue IgG and anti IgM was collected on a predefined proforma. All the data was entered and analyzed in SPSS Ver. 25.0. The qualitative variables were presented as frequency and percentages. The quantitative variables were presented as mean and standard deviation. Relevant statistical analysis was performed.

RESULTS:

A total of 130 patients was included in the study. The mean age of the patients was 41.56 ± 2.87 years, mean age of the females was 39.23 ± 3.67 years and mean age of males was 43.31 ± 4.78 years. There were 70 [54%] females and 60 [46%] males in the study. Probable patients were those, whose IgG and IgM were negative. Confirm patients were those who IgG and IgM were positive. Out of 130, thirty patients were labelled as probable and 40 patients were labelled as confirm patients.



DISCUSSION:

Dengue is a viral infection caused by four types of viruses [DENV-1, DENV-2, DENV-3, DENV-4] belonging to the Flaviviridae family. The viruses are transmitted through the bite of infected *Aedes aegypti* and *Aedes albopictus* female mosquitoes that feed both indoors and outdoors during the daytime [from dawn to dusk]. These mosquitoes thrive in areas with standing water, including puddles, water tanks, containers and old tires. Lack of reliable sanitation and regular garbage collection also contribute to the spread of the mosquitoes. Risk of Dengue exists in tropical and subtropical areas of Central America, South America, Africa, Asia, and Oceania. All travellers are at risk during outbreaks. Long-term travellers and humanitarian workers going to areas where Dengue is endemic are at higher risk. Dengue occurs in urban and suburban settings with higher transmission rates happening during the rainy season. In some cases, Dengue infection is asymptomatic – persons do not exhibit symptoms. Those with symptoms get ill between 4 to 7 days after the bite. The infection is characterized by flu-like symptoms which include a sudden high fever coming in separate waves, pain behind the eyes, muscle, joint, and bone pain, severe headache, and a skin rash with red spots. Treatment includes supportive care of symptoms. There is no antiviral treatment available [8,9].

The illness may progress to Dengue Hemorrhagic Fever [DHF]. Symptoms include severe abdominal

pain, vomiting, diarrhea, convulsions, bruising, and uncontrolled bleeding. High fever can last from 2 to 7 days. Complications can lead to circulatory system failure and shock, and can be fatal [also known as Dengue Shock Syndrome]. If you are infected with the same Dengue virus serotype you become immune to future infections. However, if you are infected subsequently with a different serotype, immunity wanes over time which increases the risk of developing Dengue Hemorrhagic Fever. Dengue is related to Zika Virus, Yellow Fever, West Nile Virus, and Japanese Encephalitis. It can be misdiagnosed for Chikungunya, Zika Virus, or Yellow Fever. The primary method of controlling *A. aegypti* is by eliminating its habitats. This is done by getting rid of open sources of water, or if this is not possible, by adding insecticides or biological control agents to these areas. Generalized spraying with organophosphate or pyrethroid insecticides, while sometimes done, is not thought to be effective. Reducing open collections of water through environmental modification is the preferred method of control, given the concerns of negative health effects from insecticides and greater logistical difficulties with control agents. People can prevent mosquito bites by wearing clothing that fully covers the skin, using mosquito netting while resting, and/or the application of insect repellent [DEET being the most effective]. While these measures can be an effective means of reducing an individual's risk of exposure, they do little in terms of mitigating the frequency of outbreaks, which appear to be on the

rise in some areas, probably due to urbanization increasing the habitat of *A. aegypti*. The range of the disease also appears to be expanding possibly due to climate change [10,11].

REFERENCES:

1. Stramer SL, Hollinger FB, Katz LM, Kleinman S, Metzel PS, Gregory KR, Dodd RY [August 2009]. "Emerging infectious disease agents and their potential threat to transfusion safety". *Transfusion*. 49 [Suppl 2]: 1S–29S. doi:10.1111/j.1537-2995.2009.02279.x. PMID 19686562.
2. Teo D, Ng LC, Lam S [April 2009]. "Is dengue a threat to the blood supply?". *Transfusion Medicine*. 19 [2]: 66–77. doi:10.1111/j.1365-3148.2009.00916.x. PMC 2713854. PMID 19392949.
3. Wiwanitkit V [November 2009]. "Unusual mode of transmission of dengue". *Journal of Infection in Developing Countries*. 4 [1]: 51–4. doi:10.3855/jidc.145. PMID 20130380.
4. "News Scan for Nov 08, 2019". CIDRAP. Retrieved 12 November 2019.
5. Martina BE, Koraka P, Osterhaus AD [October 2009]. "Dengue virus pathogenesis: an integrated view". *Clinical Microbiology Reviews*. 22 [4]: 564–81. doi:10.1128/CMR.00035-09. PMC 2772360. PMID 19822889.
6. WHO [2009], pp. 10–11.
7. Halstead, Scott B. [2008]. *Dengue*. London: Imperial College Press. p. 180 & 429. ISBN 978-1-84816-228-0. Archived from the original on 4 May 2016.
8. WHO [2009], pp. 90–95.
9. Musso D, Nilles EJ, Cao-Lormeau VM [October 2014]. "Rapid spread of emerging Zika virus in the Pacific area". *Clinical Microbiology and Infection*. 20 [10]: O595–6. doi:10.1111/1469-0691.12707. PMID 24909208.
10. Yacoub S, Wills B [September 2014]. "Predicting outcome from dengue". *BMC Medicine*. 12 [1]: 147. doi:10.1186/s12916-014-0147-9. PMC 4154521. PMID 25259615.
11. Comprehensive guidelines for prevention and control of dengue and dengue haemorrhagic fever [Rev. and expanded. ed.]. New Delhi, India: World Health Organization Regional Office for South-East Asia. 2011. p. 17. ISBN 978-92-9022-387-0. Archived from the original on 14 June 2019. Retrieved 16 September 2017.