

УДК 616.928.8:578.833.25

DENGUE FEVER IS A LIFE THREATENING DISEASE

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Introduction

Dengue fever is an acute anthroponous, mosquito borne viral infectious disease caused by an RNA — containing virus of the genus Flavivirus, with a transmissible mechanism of transmission of the pathogen.

The disease was first studied by researcher D. Bilon in 1779 on the island of Java, where the epidemic was ranging Dengue. In the 19th and 20th centuries, numerous epidemics of this disease were described in different parts of the world, as well as in the 21st century, this problem is relevant.

Global exposure to dengue fever has increased dramatically in recent decades and is found in more than 110 countries around the world. Such as Africa, America, the Mediterranean region, South-East Asia and the Western Pacific region [1]. Recently, due to the development of mass tourism, the intensification of migration processes and business links, there has been a problem with imported cases of this disease in non-endemic areas of European and Asian countries; for example Brazil, Mexico, Nicaragua, Russia, the Philippines, India and Malaysia, according to the latest dengue monitoring. In 2018 and 2019, France and Spain reported autochthonous dengue cases. Worldwide, according to WHO, every year 100 million cases are reported, which results in up to 25,000 deaths annually worldwide (WHO).

Aim

To study about the dengue fever. To know the causes, statistic and prevention.

Material and methods

The analysis and generalization of modern medical scientific literature on this topic.

Research results and discussion

Dengue fever is the cause of Dengue virus (DENV). Single stranded RNA virus, Arbovirus belonging to Flaviviridae family in the genus Flavivirus, 4 antigenically distinct serotypes — DEN 1, 2, 3, 4 [2]. The transmission mechanism is transmission. Dengue virus carriers are female mosquitoes, mainly of the species *Aedes aegypti* and, to a lesser extent, *Aedes albopictus* [1].

Dengue is widespread in the tropics, and local differences in risk degree depend largely on precipitation, temperature, and spontaneous rapid urbanization.

Most intensively this the infection manifests itself during periods of various social upheavals, accompanied by a sharp deterioration in sanitary conditions (especially if necessary, store water in any containers, containers) and the emergence of a large number of persons susceptible to infection [3].

Mosquito bites and sucks blood containing the virus from an infected person. Virus is carried in its body and passes the virus to healthy people when it bites them. After a mosquito bite, within 3–5 days, the virus multiplies in regional lymph nodes and vascular endothelium. After a period of primary replication, viral particles enter the bloodstream. After that virus is engulfed by macrophages that can release cytokines and interferon because of this host will get fever and flu like symptoms and also myalgia. And it may cause increased permeability of capillaries. Therefore, Fluid leakage occurs between capillaries which lead to decrease of blood pressure [4].

Which may lead to infection of the stromal tissues of bone marrow, and will decrease platelets count. Finally leads to hemorrhagic manifestation [4, 5].

In most cases, symptoms disappear within 7 days without additional complications. However, in a small minority of patients, a short period of fever relief should be followed ex-

acerbation of abdominal symptoms (pain, nausea, vomiting, diarrhea), appears thrombocytopenia, bleeding (dengue hemorrhagic fever: nosebleed, bleeding from the gums, gastrointestinal bleeding), capillary seepage syndrome (Dengue shock syndrome: hemoconcentration, hypalbuminemia, pleural effusion, shock). If not corrected this condition it can lead to death [6].

The death rate due to illness for dengue fever is 1 %, but with the development of dengue hemorrhagic fever / dengue shock syndrome, it can reach 40 %, this very much depends on the availability of medical care. Children are at increased risk (more susceptible to children in the 8 to 11 year old group and individuals suffering from diseases such as diabetes, heart disease, and asthma.

The 1997 WHO classification included the separation of dengue fever into classic (DF) and hemorrhagic / shock dengue fever (DHF / DSS), with differentiation of DHF / DSS to 4 degrees of severity [7]. Such a gradation did not always correspond to the severity of the disease, and in 2009, WHO experts proposed a new interpretation that includes the following categories: probable dengue fever, dengue fever with threatening symptoms (dengue with emergency signs) and severe dengue [2, 8]. In 2012, WHO recommended a new classification of dengue fever, which focuses on the severity of the disease.

Dengue fever is difficult to distinguish from a number of other febrile diseases, such as malaria and typhoid fever, especially at the initial stage before the rash appears. In the case of dengue hemorrhagic fever / dengue shock syndrome, other viral hemorrhagic fevers, leptospirosis, rickettsiosis infection, and meningococemia.

Nowadays diagnosis methods are available such as complete blood counts, hematocrit, platelet count, serum albumin, serum GOT, GPT, proteinuria, hematuria, immunological tests and chest ski gram. Doctors use antibody titer and polymerase chain reaction to test for dengue virus types.

Preventions are stop — all that you are doing against environment, look- for the breeding sites and destroy those, and listen- for the government advisories. Vector control, includes biological: largely experimental, use of fish to feed on larvae, Environmental: elimination of larval habitat, most likely successful strategy, Purpose of control: to reduce female vector density. If you ever travel to an area susceptible to dengue fever, always remember it is a very serious disease and prevention of mosquito bites needs to be taken seriously [6, 9].

Conclusion

Thus, only an integrated approach, analysis of the epidemiological situation and clear interaction of all interested services can guarantee sanitary and epidemiological well-being in endemic areas.

It is necessary to remember, despite the fact that Dengue fever is not typical for European regions, it can occur as imported cases, for example after visiting endemic countries by tourists. Therefore, General practitioners and infectious disease specialists should keep this in mind.

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