

DENGUE FEVER

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Article Information

Received 15/06/2020; Revised 15/07/2020
Accepted 17/08/2020

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ABSTRACT

Dengue is a viral disease spread by Aedes Mosquitoes that bites in day time. It is occurring in tropical and subtropical areas. The global incidence of dengue has grown dramatically in recent decades. About half of the world's population is now at risk. The largest number of dengue cases ever reported globally was in 2019. The primary mode of transmission of DENV between humans involves mosquito vectors. This article briefly discuss about Dengue fever infection, transmission, signs and symptoms, treatment protocol and prevention.

Key words: Dengue Virus, Mosquito

INTRODUCTION

Dengue virus is currently one of the most serious public health problem world wide. The WHO estimates that about 80 million people became infected annually in more than 100 countries .About 55000 of the infected patients require hospitalization and 25000 die due to dengue fever,. Dengue virus is a member of the flaviviridae family and flavi virus genus with a single stranded RNA genome of positive polarity. There are four types (denv-1, -2, -3, -4) and the virus is transmitted to humans through the site of mosquitoes of the genus Aedes. It is called as seven day fever since the symptoms usually persist for 7 days .Dengue goes by other names including break bone fever or dandy fever.

THE APPEARANCE OF THE MOSQUITO

Aedes aegypti is a small dark mosquito that can be identified by the white bands on its legs and a

silver white pattern of scales on its body that look like an ancient Greek musical instrument called a lyre.

WHERE IT IS FOUND ?

Aedes aegypti dwell in tropical and subtropical regions all over the world mainly between the latitudes of 35 N and 35 S where the winter temperature is colder than 10 C. Dengue was first recognized in the 1950 during dengue epidemics in the philippines and Thailand.

MODE OF TRANSMISSION

- Female Aedes aegypti become dengue vector after feeding on the blood of a person infected with dengue virus. Infected mosquitoes continue to transmit dengue with each blood meal for the rest of their lives.



- The mosquito flourishes during rainy seasons but can breed in water filled flower pots, plastic bags, and cans years around. The virus is not contagious and cannot spread directly person to person.
- The full life cycle of the virus involves the Aedes mosquito as the vector (transmitter) and the human as the source of infection.

INCUBATION PERIOD

3 to 15 days before the signs and symptoms of dengue appear in stages.

CLINICAL FEATURES

- Dengue fever starts with non specific flu like symptoms of chills, headache, pain in the back of the eyes that may worsen upon moving the eyes, appetite loss, low backache etc.
- Painful aching in the legs and joints occurs during the first hour of illness.
- The temperature rises quickly as high as 104 F with relatively low heart rate (brady cardia) and low blood pressure (hypotension)
- A flushing or pale pink rash comes over the face and then disappears.
- The lymph node in the neck or groin are often swollen.
- A Characteristic itchy rash – small red spots called petechiae along with the face and spreads from the extremities to cover the entire body except the face.
- The palms and soles may be bright red and swollen.
- Rapid pulse, epigastric discomfort, Abdominal pain, lethargy.
- Liver becomes palpable.

DIAGNOSTIC FINDINGS

- History collection
- Physical examination
- Blood examination to detect Ig M capture ELISA to diagnose people with dengue fever
- Complete blood count-haemato crit level.
- Coagulation studies – low platelet count due to plasma leakage and low WBC
- A MAC –ELISA ASSAY is the most widely used test for dengue fever virus.
- Tourniquet test.

DIFFERENTIAL DIAGNOSIS

- Rift valley fever
- Yellow fever.
- Chicken gunya
- West Nile fever

MANAGEMENT

- Fluid replacement for vascular collapse.
- Blood transfusion
- Oxygen therapy
- Acetaminophen and codeine may be given for severe headache and for joint and muscle pain.
- Aspirin and NSAIDs should be avoided.
- Researchers proved that carica papaya leaf extract is an effective treatment for dengue fever.
- Nila vembu kasayam 30 ml for children.
- Basil leaves.
- Neem leaves
- Pressor agents used along with fluid therapy to resuscitate shock and BP Should be maintained above 90 mm of Hg.

PROGNOSIS

The prognosis for dengue is usually good. Typical dengue infection is fatal in less than 1% of cases. However the more severe dengue haemorrhage fever is fatal in 2.5% of cases.

DENGUE HAEMORRHAGIC FEVER (DHF)

DHF is a specific syndrome that tends to affect children under 10 years of age. DHF is also called Phillipines, Thai or Southeast Asian haemorrhage fever or dengue shock syndrome.

1. DHF starts abruptly with contagious fever and headache.
2. Sore throat, cough, nausea, vomiting, and abdominal pain.
3. Shock appears 2 to 6 days after the start of symptoms with sudden collapse cool and clammy extremities, weak pulse and blueness around the mouth
4. Bleeding with easy bruising.
5. Haematemesis (spitting of blood)
6. Blood in stool (malena)
7. Nose bleed (epistaxis)

Treatment with analgesics, fluid replacement, Blood transfusion, oxygen therapy etc.

PROGNOSIS

The mortality rate with DHF is significant. WHO estimates 9.25 % mortality rate with treatment. Without proper treatment the mortality rate rises to 20%

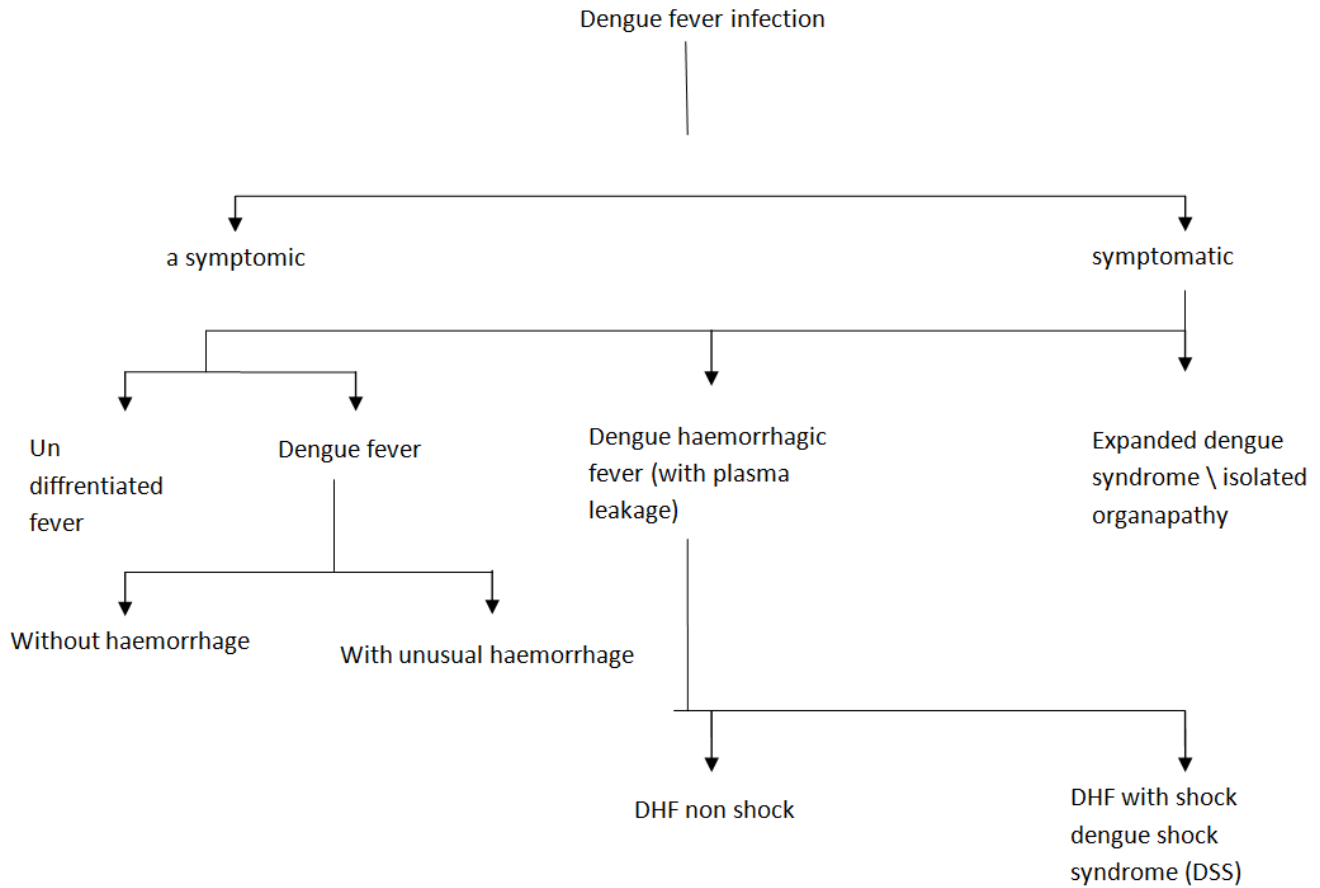
PREVENTION

In April 2016, the WHO approved Sanofi Pasteurs Dengvaxia (CYD-TDV). A live recombinant vaccine for dengue fever. It can be administered as a three dose series in people 9-45 years of age who lives in areas where dengue is endemic.

In dengue – endemic tropical and subtropical areas should wear light coloured long sleeved shirts and long pants or trousers. Use repellent spray or sleep indoors



in air conditioning when possible and use mosquitoes netting over the bed if available.



CONCLUSION

Dengue is a global threat, that requires a global response involving all possible partners. The environmental measurements are detection and

elimination of mosquitoes breeding places, management of roof tops ,porticos and sun shades ,proper covering of stored water, observation of weekly dry day.

REFERENCES

1. Park (2017) preventive and social medicine ,(24 edition). Jabalpur, published by m\s Banarsidas Bhanot publishers, 260-275
2. Parul data (2018) paediatric nursing ,(4edition)New Delhi , Jaypee brothers Medical Publishers 215-220
3. Kochuthresiamma Thomas(2018)Medical surgical nursing ,(1 edition) New Delhi ;Jaypee brothers medical publishers private ltd. 700-703
4. <https://www.medicinenet.com>.
5. <https://www.medicalnewstoday.com>.



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