Difference Between Dengue and Viral Fever

Key Difference - Dengue vs Viral Fever

Viruses are at the lowest level in the hierarchical arrangement of forms of life. They are very small in size and require the support of a living cell of an advanced organism for their survival and replication. In that sense, viruses can be considered as a parasitic form of life also. These minute organisms can also cause thousands of diseases in the humans and dengue is one of them. Dengue is caused by a flavivirus that is transmitted by Aedes aegypti and occurs in two forms of classic dengue fever and hemorrhagic dengue fever. Accordingly, dengue is only one disease out of the many other diseases caused by viruses. This is the key difference between dengue fever and viral fever.

What is Dengue?

Dengue is the commonest arthropod-borne viral infection in the world. There are four main strains of viruses that are transmitted by the mosquito Aedes aegypti. The mosquito breeds in non-flowing standing water. Dengue usually occurs as an endemic, especially in the tropical regions.

There is an incubation period of 5-6 days after which the clinical manifestations appear. Two main forms of dengue fever are described below:

Classic Dengue Fever

This form is characterized by the presence of following features.

- Sudden onset of fever
- Malaise
- Headache
- Focal flushing
- Retro-orbital pain
- A severe backache
- Conjunctival symptoms
- There is a biphasic variation where the fever gradually disappears only to return with the same but mild symptoms.

Dengue Hemorrhagic Fever

This is the most severe form of dengue fever and is a result of subsequent infection with the virus after the initial exposure. The disease usually begins in a mild form often with features of urinary tract infections. Then gradually the following symptoms start to appear.
Capillary leak syndrome
Thrombocytopenia
Hemorrhage
Hypotension
Shock

When epistaxis, melaena, or haemorrhage into the skin occurs, that is identified as dengue shock syndrome.

**Diagnosis**

- Detection of virus-specific IgM antibodies
- Blood tests to identify thrombocytopenia and leucopenia
- Viral nucleic acid amplification tests

**Management**

Management is supportive with analgesics, and adequate well monitored fluid replacement. In DHF blood transfusion and intensive care support are necessary.

**What is Viral Fever?**

Viruses are one of the most rudimentary forms of life. Despite their simplicity in structure and function viral infections can cause many diseases and sometimes even
death in humans. Depending on the virus, the clinical manifestations differ, but the frequently seen clinical features in viral infections are,

- Fever
- Diarrhea
- A sore throat
- Cough
- malaise

![Hernipa Virus Structure](image)

**Figure 02: Structure of Hernipa Virus**

it is necessary to seek medical attention when you have much worse and serious symptoms than the ones mentioned above to identify the causative agent and preventing any complications.

**What are the Similarities Between Dengue and Viral Fever?**

- Dengue is caused by flavivirus which belongs to the broad category of viruses.

**What is the Difference Between Dengue and Viral Fever?**

<table>
<thead>
<tr>
<th>Dengue vs Viral Fever</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dengue is the commonest arthropod-borne viral infection in the world transmitted by the mosquito <em>Aedes aegypti</em>.</td>
</tr>
<tr>
<td>Viral Fever is caused by any harmful virus to the humans.</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Nature</th>
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<tbody>
<tr>
<td>Dengue fever does not resolve on its own</td>
</tr>
<tr>
<td>Viral fevers usually resolve on their own</td>
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</table>
There is a biphasic variation of the body temperature. | There is no biphasic variation.
---|---

<table>
<thead>
<tr>
<th>Symptoms</th>
<th></th>
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<tbody>
<tr>
<td>The patient can have a headache, arthralgia and a rash along with fever.</td>
<td>Body aches can be present but the presence of a rash is unlikely.</td>
</tr>
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<tr>
<th>Hypovolemic Shock</th>
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<tbody>
<tr>
<td>Leakage of fluid into the extracellular spaces can cause a hypovolemic shock.</td>
<td>Hypovolemic shock is a very distant complication of many of the viral fevers.</td>
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<tr>
<th>NS1 Antigen</th>
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<tbody>
<tr>
<td>NS1 antigen is present</td>
<td>NS1 antigen is absent.</td>
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## Summary - Dengue vs Viral Fever

Viruses are the second smallest group of living beings that can cause many different disease conditions in humans with various clinical features out of which dengue is one. If not treated properly dengue can be a life threatening illness. The risk of mortality increases in the reinfections. This is the difference between dengue and viral fever.
Reference:


Image Courtesy:

1. 'mosquito-biting-female-parasite-542156' by seeze / 11324 images (Public Domain) via Flickr
2. 'Henipavirus structure' By Zeimusu - Henipavirus_structure.png, (CC BY-SA 3.0) via Commons Wikimedia

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