A clinical study on dengue fever

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Abstract
Dengue fever is caused by Flavivirus, transmitted by Aedes Mosquito and estimated 70-300 million cases dengue fever and several hundred thousand cases of dengue Hemorrhagic fever occurs each year (1). The increasing number may be due to climate factors, travel and urbanization (2). It is worldwide disease particularly effects subsaharan Africa, India, China, Srilanka. It causes high morbidity and mortality.

Materials and Method: Our study conducted in Andhrapradesh, Telangana States from Jan 2016 to Dec 2017. Patients with symptoms of dengue fever included in this study. Total 900 patients were included in this study. 550 were Male and 350 were Female blood samples were send for NS1 antigen and IgM antibody Elsia.

Results: Dengue fever is positive in 170 Males (18% ) and 116 Females(12%) Total positive patients are 286 out of this 192 are IgM positive 94 are NS1 positive.

Conclusion: Dengue fever are common in India throughout the year particularly more in rainy season. So there is need to control mosquito by public health department.

Keywords: dengue fever, hemorrhagic shock, thrombocytopenia

Introduction
Dengue fever is a major public health problem throughout the world and in India also. Dengue fever and dengue hemorrhagic fever the number is increasing each year as a consequences of climate factors, travel and urbanization it is thus along with malaria one of the two most common and important vector born disease of humans (3). Around 2.4 Billion population live in dengue prone area across the globe. According to survey reports. All serotype are prevalent in India. The common symptoms in dengue fever are fever chills, “Break Bone” aching of type of headache, back, extremities accompanied by sore throat macula popular rash Hepatitis effect in 5% patients. Gastro intestinal complications including hemorrhage, Tenderness, Ascites are more common with dengue hemorrhagic fever (4) Dengue hemorrhagic fever usually affects children living in endemic areas and most likely to occur in secondary infection and infection with serotype 2.

Materials and Methods
This study was conducted between Jan 2016 and Dec 2017. Patients with acute febrile illness were included in this study. Total number of patients were 900, Males 550 are females 350 were included in this study. Among 550 Males 220 were Boys (Pediatric age group) and Among 350 females girls were 160 (Pediatric age group) Case identification and diagnosis were done as per the world health organization guidelines. Blood samples were collected between 2nd to 9 days from the onset of fever and samples were tested for acute phase dengue infection by dengue NS1 Elisa or Dengue specific IgM.

Table 1

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>550</td>
</tr>
<tr>
<td>Females</td>
<td>350</td>
</tr>
<tr>
<td>Total</td>
<td>900</td>
</tr>
</tbody>
</table>
Table 2: Year wise distribution

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Cases</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>500</td>
<td>310</td>
<td>190</td>
</tr>
<tr>
<td>2017</td>
<td>400</td>
<td>240</td>
<td>160</td>
</tr>
</tbody>
</table>

Results
In our study total 900 patients were tested for dengue fever out of these 900 patients 286(33%) were positive with dengue infection 192(28%) are IgM positive and 94(14%) are NS1 positive.

Table 3

<table>
<thead>
<tr>
<th>Gender</th>
<th>Adults</th>
<th>Children</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>330</td>
<td>220</td>
<td>550</td>
</tr>
<tr>
<td>Females</td>
<td>190</td>
<td>160</td>
<td>350</td>
</tr>
</tbody>
</table>

Discussion
In India dengue fever cases were increasing in number over the past 25 years first case was reported in 1964 serotype is 1 serotype 4 was reported in 1965 (6, 7, 8) studies shows that all serotype 1,2,3,4 are reported from different past of the country (9, 10) According to study conducted by Killign et al. 2007 [3] Carlos et al. 2005 [4] children are at particular risk (11). Incidence of dengue is common throughout the year particularly more in June/July months at the onset of monsoon. So government agencies & NGO’s are to take initiation in preventing the mosquito spread. Millions of dengue infections including many thousands hemorrhage fever occurs annually, Monocyte infection is central to the pathogenesis of dengue fever and to the origin of (18) Dengue hemorrhage. Type 2 serotype is apparently more dangerous than other serotypes. Dengue hemorrhage fever is identified by the deletion of bleeding tendencies or ovest bleeding in the absence of underlying causes of such as pre-existing gastro intestinal disease.

References
2. Harrisons principles internal medicine 19th Edi.
4. David son’s principle of medicine 23rd Edi.