

EDITORIAL

Dengue fever : An Overview

Dengue is an important flavivirus infection affects millions of people world wide, particularly in urban and semi-urban areas of tropical and sub- tropical regions. Around 2.5 billion people are in risk zone¹. It has four distinct antigenic serotypes (dengue virus 1-4). Though dengue infection occurs as a self limiting, febrile illness dengue fever (DF), its severe forms dengue haemorrhagic fever (DHF) and dengue shock syndrome (DSS) produce important disease burden and high mortality rate². According to who criteria³ for defining DHF the following must all be present a) fever b) haemorrhagic tendency c) thrombocytopenia d) evidence of plasma leakage manifested by either a rise of haematocrit 20% above average for age, sex and population or as pleura effusion, ascites and hypoproteinemia. For defining DSS all of the above four criteria for DHF, plus evidence of circulation failure manifested by thready pulse, narrow pulse pressure (lese than 20 mm hg), hypotension or cold, clammy skin must be present.

Infection with one serotype confers protective immunity against that serotype but not against other serotypes. In fact secondary infection with a heterologous serotype is a risk factor for developing DHF / DSS⁴.

DF was first documented in Bangladesh in mid - 1960s, but an outbreak of DHF was not reported that decades⁵. On june 2000 ELISA proved case of DHF presented with ascites, pleural effusion and thrombocytopenia was first identified and on that year an out break of DF (> 5000 hospitalized cases reported) and DHF occured in Dhaka and other major cities of Bangladesh⁶.

Accurate and timely diagnosis of dengue virus is important for early diction of dengue virus infection. Dengue PCR test, dengue NSI antigen test and dengue antibody test are able to detect dengue virus infection from days 1 to 8.⁷

Management of dengue fever is symptomatic and supportive- bed rest is advisable during the acute phage, use cold sponging to keep temperature below 39 °C. Paracetamol is preferable as antipyretic. Aspirin / NSAID like Ibuprofen etc. should be avoided since it may cause gastritis, vomiting, acidosis and platelet dysfunction. Oral fluid and electrolyte therapy are recommended for patients with excessive sweating or vomiting, avoid inappropriate intravenous (IV) fluids. In DHF, if IV fluids are given should be with great care because when not necessary or too quickly, the extra fluid can pour out of the leaky capillaries into the tissues and cause detrimental effects to the patients⁸. Patients should be monitored in DHF endemic area until they become afebrile for one day without the use of antipyretics and after platelet and haematocrit determinations are stable, platelet count is > 50000/cumm.

It is said that once dengue enters in a country, it stays there for ever. So vaccine production is essential for control of the disease and to save life. We are eagerly waiting for an effective available vaccine against dengue virus.

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