

Dengue Fever, Presentation and Different Treatment Options in 30 Patients

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ABSTRACT

Total 30 patients were diagnosed in 2007-2008. 17 were male and 13 were female patients with mean age of 31 years. 27 patients had classical dengue fever (DF) and 03 patients with Dengue Hemorrhagic Fever (DHF). Fever, Rash, Itching, Fibromyalgias were the major symptoms with low platelets <150,000 and WBC <4000 /micro litter. Dengue Fever was confirmed by ELISA, Anti Dengue IGM- Positive cases. Patients were treated with Paracetamol and Rehydration in group one in whom fever and majority of symptoms settled in 7- 10 days. In group-II, patients were treated with Paracetamol, Rehydration along with Steroids and Antihistamine. In this group majority of symptoms settled in 3- 5 days. In group III, patients were treated with Paracetamol, Rehydration and Anti Viral (Acyclovir). Majority of symptoms in this group settled in 7- 10 days. All the 3 patients with Dengue Hemorrhagic Fever were transfused with Platelets and improved in > 10 days.

Key Words: Dengue Fever(DF), Dengue Hemorrhage Fever(DHF), Dengue Shock syndrome(DSS).

INTRODUCTION

Dengue is a mosquitoborne viral disease with a high capacity for epidemic outbreaks. Infection can be asymptomatic or can present with symptoms ranging from mild, self-limiting, febrile illness to severe, life-threatening disease. Two clinical pictures are recognized: (a) dengue fever (DF) and (b) dengue hemorrhagic fever (DHF) or dengue shock syndrome (DSS)¹.

The four dengue serotypes^{1,5}, known as dengue 1, 2, 3, and 4, constitute a complex of the flaviviridae transmitted by *Aedes* mosquitoes, particularly *Ae. aegypti*. Infection by any of the four serotypes induces lifelong immunity against reinfection by the same serotype, but only partial and transient protection against the others. Sequential infection by different serotypes seems to be the main trigger for DHF/DSS².

The incubation period is four to six days¹. Infants and young children usually develop fever, sometimes accompanied by a rash. Older children and adults may develop either a mild febrile syndrome or classic DF with fever, headache, myalgias, arthralgia, nausea, vomiting, and rash¹. Skin bleeding, petechiae, or ecchymosis are observed in some patients. Bleeding from the nose, gums², and gastrointestinal tract; hematuria; or hypermenorrhea can accompany the clinical picture. Leukopenia is common and thrombocytopenia is sometimes observed. DF can be incapacitating, but prognosis is favorable and the case-fatality rate is low.

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By contrast, DHF/DSS can be life threatening^{1,5}. It is characterized by high fever, bleeding, thrombocytopenia. Plasma leakage differentiates DHF/DSS from classic DF.

RESULTS

Thirty patients registered in 2007- 2008 who were diagnosed as a case of Dengue Fever by Anti Dengue-IGM Positive. Among 30 patients 17 (56.66%) were male and 13 (43.33%) were female patients. The mean age was 31 years. Among 30 patients 27 had classic Dengue Fever (DF) and 03 patients were diagnosed as Dengue Hemorrhagic Fever (DHF). High grade fever, Rash, Itching, Fibromyalgia, Platelet count <150,000 and WBC < 4000/ micro litter were used as diagnostic criteria and diagnosis was confirmed by Anti Dengue-IGM Positive (Table 1).

Table 1

Features	Male (17)	Female (13)
Fever	17	13
Headache	11	4
Myalgias	15	12
Arthralgia	09	10
Nausea	07	02
Vomiting	05	02
Rash	03	01
Itching	10	8
Platelet (<150,000)	17	13
WBC (< 4000)	17	13
Dengue-Igm Positive	17	13

Skin bleeding, Petechiae, Ecchymosis, Bleeding from Nose, gums and gastrointestinal tract, Hematuria and Hypermenorrhea were assessed in

patients with Dengue Hemorrhagic Fever (DHF). (Table 2)

Table 2.

Symptoms	Male	Female
Skin bleeding	0	0
Petechiae	2	1
Ecchymosis	2	
Bleeding from nose, gum, GIT	1	0
Hematuria	0	1
Hypermenorrhea	0	0

Table 3 Patients Treated With Paracetamol and Rehydration

Symptom improved	3-5 days	5-7 days	7-10 days	>10 days
Fever (10)	0	02	05	03
Itching (6)	0	01	02	04
Myalgia (9)	0	0	03	06
Arthralgia (5)	0	01	02	01
Rash (1)	0	0	01	0
Platelet (10) >150,000	0	Transfused	03	02
TLC >4000	0	0	05	05

Table 4: Patients Treated With Paracetamol, Rehydration, Steroids and Antihistamine

Symptom improved	3-5 days	5-7 days	7-10 days	>10 days
Fever (10)	10	-	-	-
Itching (9)	09	-	-	-
Myalgia (10)	07	03	-	-
Arthralgia (10)	08	02	-	-
Rash (02)	0	-	01	-
Platelet (10) >150,000	0	Improved	-	-
TLC >4000	0	improved	-	-

Table 5: Patients Treated With Paracetamol, Rehydration, and Anti viral (acyclovir)

Symptom improved	3-5 days	5-7 days	7-10 days	>10 days
Fever (10)	01	02	05	02
Itching (9)	0	-	-	03
Myalgia (10)	0	-	02	06
Arthralgia (10)	0	02	01	01
Rash (02)	0	0	0	01
Platelet (10) >150,000	0	Transfused	05	Transfused
TLC (10) >4000	0	02	02	06

Patients were treated by using three different treatment options. In group-I patients were treated with Paracetamol and Rehydration and majority of the symptoms were improved in 7 – 10 days. In group II, patients were treated with Paracetamol,

Rehydration, Corticosteroids and Anti histamine and majority of the symptoms in this group improved in 3-5 days. In group III patients were treated with Paracetamol, Rehydration and Anti Viral (Acyclovir). Majority of symptoms in this group improved in 7- 10 days (Table 3,4,5). Patients with Dengue Hemorrhagic Fever stayed longer and platelets were transfused in such cases.

DISCUSSION

Dengue infection results in significant morbidity and mortality worldwide. Current recommended medical treatment is largely supportive with adequate fluid replacement and paracetamol, with no specific treatment available¹. Although corticosteroids are not mentioned in WHO guidelines³ except in Dengue Hemorrhagic Fever/ Dengue Shock Syndrome (DSS). But I noticed in my study that the patients who were given steroids and anti histamine showed early response in fever settlement and Symptoms improvement. Also Platelets and WBC returned to normal in less than seven days. In University of Colombo³, Srilanka steroids were used with some convincing results. A study conducted in Aga Khan Hospital⁴ where patients were analyzed who presented with Dengue Fever from 2001-2004 and 2005-2006 showed a clear change in proportion of the patients who presented with Dengue Classic Fever and Dengue Hemorrhagic Fever. Majority of the patients from 2001- 2004 were of Dengue classic Fever but its proportion decreased in patients who presented from 2005-2007 in whom Dengue Hemorrhagic fever was 39% as compared to 24% in patients from 2001-2004. This proportion indicate that probably these patients are reinfectd from some other serotype. In my study majority of the patients are of dengue classic fever this is because Dengue Fever appear in Punjab from last two to three years.

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