A Study of Symptomatic And Clinical Profile In Dengue Patients

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Abstract : **Background:** Dengue infection is caused by any one of four distinct but closely related dengue virus. Infection with any of the four dengue serotypes can produce the full spectrum of illness and severity. Early clinical recognition of dengue infection and anticipatory treatment for those who develop DHF or DSS can save lives. **Objectives:** To know the common presenting symptoms and clinical profile of dengue patients presenting at tertiary care hospital . **Methods;** A cross sectional study was carried out on all the cases of dengue fever and dengue hemorrhagic fever admitted in medicine department, BJ Medical College, Ahmadabad from May-2007 to December 2009. Results: dengue is common in age group between 11-30 years, which includes almost 76% of total patients. Dengue fever in the absence of haemorrhage of features of shock is the commonest entity. It includes 80% of all patients. Cases of dengue haemorrhagic fever are 14% and only 6% of patients develop dengue shock syndrome. Fever is most common feature by which patients present themselves at hospital.90% of the patients having symptom called fever in our study. Most common clinical finding was hepatomegaly in 20% of patients. **Conclusion:** The dengue fever is common in 11-30 years of age group with fever is more common presentation. [Parmar K et al NJIRM 2013; 4(6) : 94-96]

Key Words: Clinical Profile, Dengue fever, Dengue shock syndrome and Symptomatic Profile.

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Introduction: Dengue infection is caused by any one of four distinct but closely related dengue virus (DENV) serotypes (called DENV-1, -2, -3, and -4). These dengue viruses are single-stranded RNA viruses that belong to the family Flaviviridae and the genus Flavivirus—a family which includes other medically important vector-borne viruses. Dengue viruses are arboviruses (arthropod-borne virus) that are transmitted primarily to humans through the bite of an infected Aedes species mosquito .[1] Transmission may also occur through transfusion of infected blood or transplantation of infected organs or tissues. Human transmission of dengue is also known to occur after occupational exposure in healthcare settings (e.g., needle stick injuries)

Infection with any of the four dengue serotypes can produce the full spectrum of illness and severity. The spectrum of illness can range from a mild, non-specific febrile syndrome to classic dengue fever (DF), to the severe forms of the disease, dengue hemorrhagic fever (DHF) and dengue shock syndrome (DSS). Severe forms typically manifest after a two to seven day febrile phase and are often heralded by clinical and laboratory warning signs. Early clinical recognition of dengue infection and anticipatory treatment for those who develop DHF or DSS can save lives. [2] So this study was done to know the common presenting symptoms and clinical profile of dengue patients presenting at tertiary care hospital. So we can easily diagnose the patient and can make early treatment available and can refer if necessary.

Material and Methods: The study was carried out on all the cases of dengue fever and dengue hemorrhagic fever admitted in medicine department, BJ Medical College, Ahmadabad from May-2007 to December 2009.The case definition was based on WHO criteria.[3] Patients those who are more than 11 years of age were only taken for study. All necessary investigation was carried out for the patients.

Patients with clinical features, laboratory evidence and positive dengue IgM antibody were classified as and notified as case and they were further interviewed for study. Other causes of fever like malaria, enteric fever and respiratory infection are excluded by appropriate test. But patients with dual infection were included in the study.

Results and Discussion: We observed in our study that dengue was common in age group 11-30 years , which includes almost 76% of total patients and mean age of our study is 27.2 years. This trend is not similar to Kerala study,[4] in which most affected age group was 31-50 years. This may be

due to Kerala outbreak is recent and there may be age group shifting in recent dengue outbreaks. In our study males were affected more as compared to females that was 54%.

Table 1: Age And Sex Distribution Of Study Population

Age	Male (No)	Female (No)	Total of Present Study (%)	Kerala Study (%)
11-20	26	16	42	29.6
21-30	14	20	34	
31-40	7	1	8	44.8
41-50	4	2	6	
>50	5	5	10	25.6

Male: Female ratio was 1.27:1. %. This was observed mostly due to male are assigned more with the outdoor activities and more exposed to the environment causing dengue.

Table:2 Clinical Spectrum In Dengue Patients

Clinical spectrum	Present study (%) (n=100)	Kerala study(%) (n=109)
Patients with dengue fever	80	66.4
Patients with dengue haemorrhagic fever	14	33.6
Patient with dengue shock syndrome	6	

As shown in table 2 we observed that more of the patient presenting with only fever cases, It includes 80% of all patients, having no sign and symptoms of haemorrhages or shock. So most common presenting entity was dengue fever rather than dengue haemorrhagic fever or dengue shock syndrome. In kerala study[4] 66.4% cases were of dengue fever and 14% cases of dengue haemorrhagic fever and only 6% of patients develop dengue shock. Hemorrhagic fever/dengue shock syndrome is more common in kerala study as compare to our study.

In our study most Common clinical feature was fever, which is observed in 90% of patients followed by myalgia (26%), vomiting (24%), headache (22%) and joint pain (18%). Dengue patients presents by various manifestations. Fever is most common feature by which patients present themselves at

Table 3 : Sign and Symptoms In Dengue Patients

Clinical features	Present study(%) (n=100)	Kerala study(%) (n=250)
Fever	90	96.8
Myalgia	26	Not evaluated
Rash & petechiae	12	13.2
Headache	22	77.2
Haematuria	4	13.6
Abdominal pain	16	62.4
Vomiting	24	Not evaluated
Bleeding from any site	10	15.2
Others	8	16.2

hospital. 90% of the patients having symptom called fever in our study. In Kerala study[4] fever was the most common manifestation observed in 96.8% of patients, Followed by myalgia, headache, vomiting etc. But in that study bleeding from GIT, reproductive tract, intracranial bleeds were also common. [2]

In our study clinical finding were observed in 68% of patients. Out of which most common clinical finding was hepatomegaly (20%). In Kerala study[4] most common clinical finding was hepatomegaly, [4] while in Delhi study most common clinical finding was rashes (36.7%) followed by hepatomegaly.[5]

Table 4: Clinical Findings In Dengue Patients

Clinical findings	Present study (%) (n=100)	Kerala study (%) (n=250)	Delhi[5] Study (%) (n=97)
Rash	10	13.2	36.7
Hepatomegaly	20	17.6	20.4
Spleeno-Megaly	16	Not Evaluated	8.2
Pleural effusion	2	13.2	9.2

Conclusion: Dengue was common in age group 11-30 years. Males were affected more as compared to females that were 54%. Male: Female ratio was 1.27:1. %. Most of the patient presenting with only fever cases, It includes 80% of all patients, having no sign and symptoms of hemorrhages or shock.

References:

1. World Health Organization. Dengue haemorrhagic fever: diagnosis, treatment,prevention and control. Geneva: World Health Organization, 1997.
2. CDC.DengueBulletin.http://www.cdc.gov/dengue/clinicallab/clinical.html (date accessed 23-9-13)
3. Dengue: Guidelines for diagnosis, treatment, prevention, and control in sub-Saharan Africa and 13 countries in South America. Geneva: World Health Organization; 2009.
4. Daniel R, Rajmohanan, Philip AZ.A study of clinical profile of dengue fever in Kollam, Kerala, India. Dengue Bulletin-vol 29, 2005.
5. Nimmannitya S.Clinical manifestation of dengue/dengue haemorhagic fever.New Delhi: WHO regional office for South East Asia; 1992;55-61

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