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Clinical Profile of Dengue Fever in a Tertiary Care Hospital Hyderabad

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Aim: To study clinical manifestations trend and outcome of the disease in confirmed cases of Dengue admitted to tertiary care hospital between May 2009 and May 2010.

Methods: The study was prospective and hospital-based.

Results: The most common presentation was Fever (100%) followed by headache (56%), myalgia (42%), joint pain (36%), rash (26%), Jaundice (6%), respiratory distress (4%), CNS symptoms (4%) and hemorrhagic manifestations (36%). Dengue fever was the most common manifestation (56%), DHF is lesser (36%), and DSS is least (8%). Deaths reported were 6%.

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I. INTRODUCTION

Dengue fever (DF) an acute febrile viral illness is the most common arboviral illness transmitted worldwide and caused by infection with one of the four serotypes of Dengue viruses and transmitted by mosquitoes of genus *Aedes*¹. The disease characterized by clinical manifestations like high fever; joint pain, hemorrhagic phenomena, often with hepatomegaly and in severe cases signs of circulatory failure².

Dengue fever is endemic in areas of Southeast Asia, i.e., India, Bangladesh, Sri Lanka, Maldives and

Thailand⁴. During an epidemic of dengue, attack rates among susceptible are 40-90%. Case fatality rates in endemic countries are 2.5 to 5%⁵. A major outbreak of dengue-like illness in India is reported in 1956 from Vellore Tamilnadu³ and since then in various parts of the country, i.e., Kolkata (1964) and Vishakhapatnam⁶ (1965).

The present study attempts to describe the salient clinical and laboratory findings of serologically confirmed hospitalized cases of dengue fever during the study period in the adult population.

II. MATERIALS AND METHODS

The study conducted at the upgraded department of medicine, Osmania General Hospital Hyderabad. It included 100 patients presenting with Dengue fever and tested positive for IgM dengue antibodies during October 2009 to October 2011.

Only those patients with classical features of Dengue, i.e., fever with chills, body aches, rash bleeding manifestations and positive IgM ELISA test included in the study. Seronegative patients for dengue and patients with other causes and those aged less than 12 years excluded from the study. The diagnosis of Dengue fever, Dengue Hemorrhagic fever and, Dengue shock syndrome based on WHO criteria.

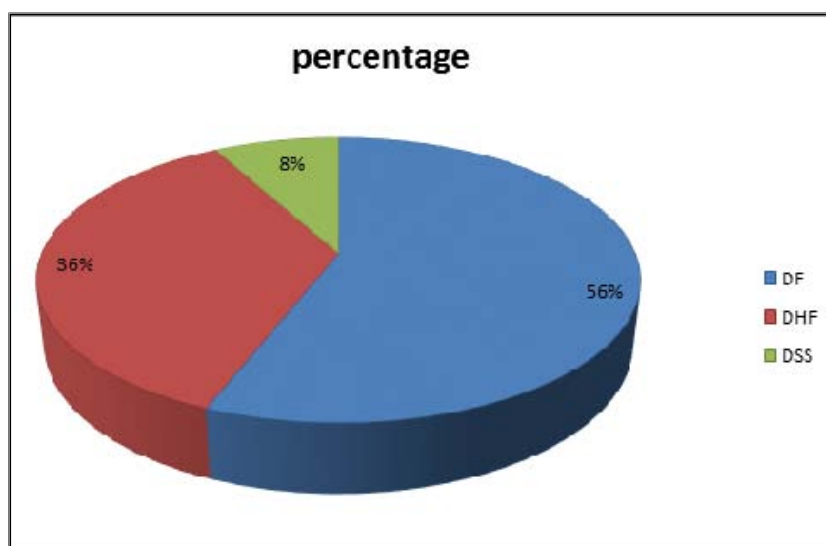


Fig. 1: Shows the clinical spectrum of disease. DF was the most common manifestation (56%), DHF is lesser (36%), and DSS is the least (8%)

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Table 1: Laboratory Parameters

Investigations	No. of Patients				Percentage
	DF	DHF	DSS	Total	
Hb<12 gm%	10	8	4	22	22%
Hb 12-14 gm%	22	16	2	40	40%
Hb>14 gm%	24	12	2	38	38%
TLC 4000-11,000	30	14	2	46	46%
TLC>11,000	6	8	2	16	16%
TLC<4,000	20	14	4	38	38%
SGOT>45	4	12	6	22	22%
SGPT>45	4	10	6	20	20%
Bilirubin>2	0	4	2	6	6%
Hematocrit>45	2	18	6	26	26%
Platelets<10,000/cu mm	0	4	6	10	10%
Platelets 10,000-1 lakh/cu mm	52	32	2	86	86%
Platelets>1,00,000/cu mm	4	0	0	4	4%

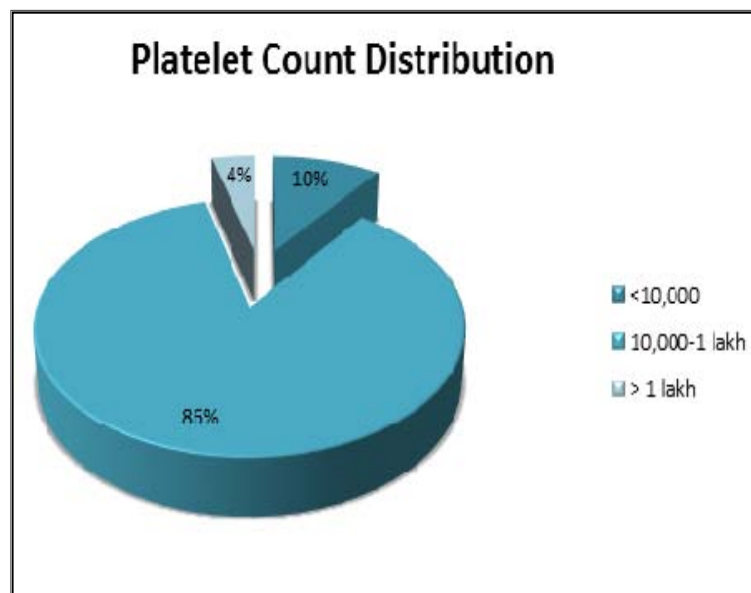


Fig. 2: Association of platelet count with positive dengue cases

III. RESULTS

A total of 100 patient admitted to hospital between October 2009 to October 2011 were studied and statistically analyzed. Most cases occur during August, September, and November, i.e., in the monsoon and post monsoon season. Majority of the cases were males 66% and Females 34%, which accounts for a ratio of Male: Female of 1.9:1. Distribution of age group is between 14 to 69 years most common being the third decade. Fever was the most common symptom (100%) followed by Headache (56%), Myalgia (44%), Bleeding (40%), Jaundice (6%) and CNS symptoms (4%). Hemorrhagic manifestations included petechiae, rash, ecchymosis (2.6%), bleeding gums (16%), bleeding from puncture sites (24%), Hematuria (4%), Malaena and Hematemesis (2%). Complications occurred in 22% among which (4%), had ARDS, (22%) had pleural effusion, (6%) had Pneumonia, and (6%) had a multi-organ failure. Deaths reported were 4%.

IV. DISCUSSION

Our study describes the clinical profile, laboratory features and outcome of DF, DHF, and DSS in adult patients.

The common age of patients was 30-39 with a range of 14 to 69 Years comparable to other studies, i.e., Priyadharshini et al⁷ and Neeraja et al⁸. The disease shows seasonal distribution, more during months from August to November similar to Ashwini Kumar et al⁹ (2008).

Dengue illness in our study manifested as DF (56%), DHF (36%), and DSS (4%). A study by Malavige et al¹⁰ showed high number of DHF cases.

The mean Hematocrit value of Dengue positive cases was 34.2 ± 5 . In DHF and DSS, an increase in Hematocrit levels is noted.

In this study, 10% of patients had platelet count less than 10,000. 86% had platelet counts between 10,000 to 1 lakh and 4% had platelet count more than 1

lakh. Similar observations found in a study by Rachel Daniel et al¹¹ and Khan et al¹².

Out of 100 patients, 96% recovered, and mortality seen in 4% of patients.

V. CONCLUSION

Dengue is one of the emerging infectious diseases in the recent years, and our study highlights the pattern of presentation of disease in correlation with laboratory parameters, complications and disease outcomes.

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