



DENGUE WITH THROMBOCYTOPENIA: A CASE REPORT

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ABSTRACT : Dengue fever is a mosquito borne viral fever which has high incidence in tropical and sub-tropical areas. Dengue Fever may range from mild asymptomatic to severe symptomatic complications like Dengue Hemorrhagic Fever and Dengue Shock Syndrome. The major problem that dengue fever causes is thrombocytopenia which in turn effects the platelets resulting in serious impact on one's health. We report a case of 55 year old female who was admitted in hospital with the complaints of fever associated with chills, loose stool, and vomiting. The patient also had a complaint of dry cough. The patient was diagnosed with dengue fever with thrombocytopenia. The patient was managed with RDP transfusion, IV fluids, SDP transfusion, Paracetamol, Carica Papaya leaf extract, Urodeoxycholic Acid and Ceftrizoxime .The patient condition improved at the time of discharge.

KEY WORDS: Dengue fever, dengue hemorrhagic fever, dengue shock syndrome, thrombocytopenia, serum glutamic oxaloacetic transaminase, serum glutamic pyruvic

INTRODUCTION: Dengue fever also known as break bone fever is a mosquito borne infectious tropical disease caused by dengue virus[1]. Dengue viruses DENVs consist of four serotypes (DENV 1, DENV 2, DENV 3 and DENV 4) that are members of Flaviviridae Family, Genus Flavivirus[2]. It is transmitted mainly by Aedes aegypti mosquito and sometimes by Aedes albopictus. All four sero types can cause subclinical infection to mild self-limiting disease the dengue fever (DF) and severe disease that may be fatal, the dengue hemorrhagic fever/dengue shock syndrome (DHF/DSS).the symptoms of

dengue virus infection is fever, joint pains, headache rashes. In addition thrombocytopenia is more marked and develops earlier in cases with fatal outcomes. other clinical presentation involving neurologic, hepatic, coetaneous, and GIT is also observed [3]. According to its incidence and mortality rate dengue is ranked as second most serious vector borne disease worldwide following malaria. In 2019 regarding to WHO estimation 2.5billion people lived in endemic areas and 50 million were infected with dengue virus annually resulting in 25000 deaths. Any age of the population can be infected with dengue virus with approximately 30-40%of them showing symptoms. However distinctions exist

between endemic and non-endemic areas. Infection rate is higher in young adults in non-endemic areas whereas in endemic areas children have highest incidence rate[4].

CASE REPORT

A 65 year old female known hypertensive reported to hospital with the complaints of fever high grade associated with chills since 4 days .there was also a complaint of dry cough and history of 1 episode of vomiting 2 days back. The patient was taking antihypertensives i.e. Clinidipine 10 mg OD, Telma 40 mg OD, CTD 6.25 mg OD

DISCUSSION

Dengue is a mosquito borne fever caused by any one of four closely related dengue viruses (DENV 1 –DENV 4) .Infection with one serotype of dengue virus provides immunity to that serotype for life but provides no long term immunity to other serotypes thus a person can be affected four times, one with each serotype[5]. The dengue virus is SS RNA of Flaviviridae family. The mature virion consist of 3 structural (core membrane associated envelope) and seven nonstructural NS1, NS2a, NS2b, NS3, NS4a, NS4b, NS5) proteins[6]. After incubation period of 3-15 days, usually 5-8 days there is abrupt onset of fever, headache, body pain, retro orbital pain joint pain anorexia dry cough nausea vomiting and chills are additional symptoms[7]. Hepatic involvement in DF characterized by elevated liver enzymes, SGOT more than SGPT levels is associated with complications like bleeding shock and organ impairment. In addition to thrombocytopenia hepatic involvement plays a significant role in bleeding[8].

In this case the patient has suffered from high grade fever associated with chills and dry cough and vomiting. On systemic examination the patient's parameters was as follows BP 125/80 mmhg, PR 84bpm, RR 22/min, temp 98F and oxygen saturation 99%. The lab investigations recommended was CBP, LFT, RFT, Dengue NS1 Ag test and also ECG.

According to the result there was drastic decrease in platelet count (24000), slight decrease in

sodium(133.2 mmol/L) and albumin (3.2 gm/dl)levels and increased levels of SGPT(104 Iu/l) and SGOT 203U/l). The patient was found positive for Dengue NS-1 Ag test. The patient was diagnosed with dengue fever with thrombocytopenia. On 1st day the PLC count was 24000 mcL,the patient was treated with RDP transfusion 5 bags along with IV fluids and other drugs given in table 1 .The SGOT levels was higher than SGPT. On 2nd day the patient was treated with SDP transfusion and with IV fluids and other drugs. SGPT < SGOT. On 3rd day the patient was treated with IV fluids and other drugs. The PLC was found to be 50000mcL. On 4th day the patient was treated with drugs and PLC was found to be 90000mcL. At the time of discharge the patient was advised to continue ceftizoxime and caripill for one more day.The patient was also advised to review after 1 week to the doctor with CBP report. The patient was discharged in afebrile and stable condition. SThe platelet count was normal after one week of discharge.

S.No	Drug Name	ROA	Frequency	Dose	Day 1	Day 2	Day 3	Day 4
1	Ceftizoxime	IV	BD	1 gm with 100ml NS	+	+	+	+
2	Pantoprazole	IV	OD	40 mg	+	+	+	+
3	Inj.paracetamol	IV	SOS	1gm	+	-	-	-
4	T. Urodeoxycholic acid	Oral	BD	300 mg	+	+	+	+
5	T. Acetyl cysteine	Oral	TID	600mg	+	+	+	+
6	T. Carica Papaya Leaf Extract	Oral	BD	1 tab	+	+	+	+
7	T. Dolo	Oral	OD	650 mg	-	-	+	-

CONCLUSION

The incidence of DF is high in tropical and sub-tropical areas. In DF involvement of thrombocytopenia associated with abnormal levels of liver enzymes (SGOT and SGPT) is an alarming sign which is leading to severity of DF. DF if not treated early may lead to complications like DHF and DSS which may lead to death. All medical health care professionals should be aware of, clinical features, diagnosis, proper treatment and prevention of complications of dengue fever.

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