

Dengue Fever:- A Rising Threat in Bhagalpur (Bihar)



MEDICAL SCIENCE

KEYWORDS : Dengue fever, Dengue hemorrhagic fever, Dengue shock syndrome

DR.BINAY KUMAR

ASSOCIATE PROFESSOR(MEDICINE) JAWAHARLAL NEHRU MEDICAL COLLEGE BHAGALPUR BIHAR 812001

ABSTRACT

Dengue fever(D.F.) was quite unknown or rather less known entity in Bhagalpur(Bihar) till recent past.For the last four years there is constantly increasing no. of D.F. among patients attending J.L.N.Medical College Bhagalpur.Majority of these cases are native of Bihar and adjoining Jharkhand state who for jobs have gone to metropolitan cities like Delhi,Bombay,Gujrat,Kolkata etc. Majority of them presented with classical features of D.F.

INTRODUCTION :- D.F. is caused by Flavivirus transmitted to humans by infected *Aedes Aegypti* especially during day time bite.Four different antigenic varieties of D.F. are recognised for whose transmission *A.Aegypti* is the principle vector.*A.Aegypti* breeds in standing water in refuge dumps in inner cities.

AIMS AND OBJECTIVES :- To evaluate the probable reasons as to why once relatively lesser known disease is on the rise today.

METHODS AND RESULTS :- The study was conducted in the department of Medicine of J.L.N.Medical College Bhagalpur.

50 cases were included in the study .Criteria was those who stayed out of Bhagalpur contracted fever there , had positive rapid card test for dengue fever and had thrombocytopenia on CBC.

These cases were thoroughly examined and it was proved that they were suffering from Dengue fever only.Their blood samples were sent for PCR test for confirmation.

All those admitted patients were kept confined inside the mosquito nets plenty of fluids in addition to their usual diets were given. As regards treatments were concerned, for fever cold sponging and paracetamol tablets were given as and when required ,prophylactic antibiotics (Inj ceftriaxone or amoxicillin) were given.Intravenous fluids eg,RL, 5%DNS were also given.Daily CBC test was done.

From day one of admission platelet count was done. It was found that the average platelet count ranged from 30000 to 50000/cumm at the time of admission.The total WBC count ranged from 2100 to 4500. None of these patients had feature of bleeding from any source.With the conventional supportive and symptomatic treatment as stated above the patients made good recovery everyday.There was progressive and gradual increase in the total WBC and platelet count. By the end of a week's treatment the total WBC count rose to 5000 to 8500 and the platelet count to 160000 to 265000.The average duration of stay in the hospital was 7 to 10 days after which they were discharged.The hospital stay was uneventful.

DISCUSSION :-D.F.is transmitted from infected mosquito to the human beings.Humans are infective during the first 3 days of the illness.Once *A.Aegypti* mosquito bites an infected person the virus passes from the mosquito intestine to salivary gland .After an extrinsic incubation period of about 2 weeks mosquito becomes infective and remain so for whole life. So far a person is bitten by one single strain of D.F. the clinical illness is mild and recovery is usually

uneventful but in case the same person gets another bite from other strain than the previous one then chances of dengue haemorrhagic fever and dengue shock syndrome are very high and mortality too is noticed.In the current study all the patients had features of dengue fever only ,it is presumed that they were fortunate to be bitten by only single strain dengue virus.Second important point of discussion is that although majority of the patients were from Bhagalpur and adjoining Jharkhand state but they came home after they had contracted this illness at the place of work other than Bhagalpur.It is thus probable that Bhagalpur does not have indigenous case rather these were the imported cases from the metropolitan cities where dengue fever is rampant.

SUMMARY:- D.F. being the most common arthropod borne viral infection affecting over 100 million people every year in tropics with over 10000 deaths due to dengue haemorrhagic fever has quite a good number in India also.The incidence in India is mainly in the metropolitan cities .But D.F. spreading in Bhagalpur like a wild fire is a matter of concern for the public in general and the health personal in particular.Preventing measures for mosquito breeding by destroying stagnant water bodies,spreading kerosene or diesel over stagnant water,regular fogging to kill mosquitos should be undertaken in time efficiently.Personal care by using full shirts and pants and socks at the place of work. Using mosquito nets during sleep is essential and important.

REFERENCES:-

- (1) Massad E,BezerraCountinho FA. The cost of Dengue Control, Lancet 2011;377:1630-1631
- (2) Schmidt AC. Response to dengue fever-the good,the bad and the ugly? N Engl.J.Med 2010;363:484-487
- (3) Simmons CP.Dengue.N.Engl.J Med2012;366:1423-1432
- (4) Centres for Disease Control and Prevention:Update Management of patients with susoected viral hemorrhagic fever United States,MMWR Morb Mortal Wkly Rep 44:475,1995