

Case Report

Dengue Fever with Prolonged Recovery - Case Report

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Abstract

Dengue fever is a major public health problem in the tropics. It has a variable presentation. Dengue fever, if not associated with any complicating factors, subsides within a week (between 5-7 days). Here, we report a case of Dengue fever with persistently high body-temperature for more than two weeks. The work-up for co-infections was negative.

INTRODUCTION

Dengue fever is the most rapidly spreading mosquito-borne viral disease in the world transmitted by *Aedes aegypti*. An estimated 50 million dengue infections occur annually and approximately 2.5 billion people live in dengue endemic countries [1].

According to WHO guidelines, after the incubation period, the illness begins abruptly and is followed by three phases - febrile, critical and recovery phase. The acute febrile phase usually lasts 2-7 days, and is accompanied by high-grade fever, skin erythema, body ache, arthralgia and headache [2].

Around the time of defervescence, usually on days 3-7 of illness, an increase in capillary permeability with increasing hematocrit levels may occur [3,4]. This marks the critical phase, which usually lasts 24-48 hours. Progressive leucopenia followed by a rapid decrease in platelet count usually precedes plasma leakage [5].

If the patient survives the critical phase, the general well-being improves, appetite returns, and the hemodynamic status stabilizes over three days.

Dengue fever with prolonged convalescence in the form of persistent myalgia and fatigue, lasting for around two weeks, is common. A case series showing long-term persistence of clinical symptoms in dengue, and its association with immunological factors has been reported [6]. There have been case reports of Dengue fever with prolonged thrombocytopenia also [7]. Here, we report a case of Dengue with fever lasting for two weeks, in the absence of associated complications, even after recovery of leuko-thrombocytopenia.

CASE REPORT

A 19-year-old male patient presented with fever of 4 days with chills, body-ache, and anorexia during the dengue epidemic in North-India in October 2015. The patient did not complain

of joint pains or rash. There was no history of dysuria, altered bowel movement, cough or coryza. The patient was febrile on examination, vitals were stable, and there were no active bleeding manifestations. General physical examination was unremarkable. There was no organomegaly. Preliminary investigations revealed thrombocytopenia [87000/mm³] and leucopenia [3700/mm³]. A presumptive diagnosis of dengue was made, and treatment with antipyretics, optimum hydration and rest advised. Test for malaria was negative. Dengue NS1 antigen was positive, and after 7 days IgM dengue serology also came positive. Over 7 days, the platelet count improved (from 87000/mm³ to 2 lakhs/mm³), and leucocyte count increased to 6800/mm³. But the patient continued to have fever even after 7 days of the illness, while myalgia, fatigue and appetite improved.

Other etiologies for fever were considered. The urine examination and chest x ray was normal. The work-up for enteric fever and malaria was negative. Blood culture was negative. Routine biochemistry including liver and kidney function tests was normal. The patient was also screened for Chikungunya and scrub typhus. The results were negative. The fever was of 101 F to 102 F after 7 days, as compared to 104 F on presentation, and touched baseline with antipyretics, only to reappear after 4 to 6 hours. This fever pattern continued for a total of 14 days when on day 15 fever decreased to 100 F. On 16th day the patient became afebrile. During these 15 days, patient was kept on antipyretics and supportive treatment only. After 3 days of afebrile period the patient was discharged, and was followed up in OPD after 1 week and was found to be asymptomatic.

DISCUSSION

As dengue fever is one of the rapidly spreading vector borne diseases, any atypical feature during the course of illness has to be documented and studied. Usually any fever of more than 10 days is regarded probably not because of dengue. But in this case it lasted for 15 days though other clinical and biochemical features were normal by day 10. In a previous case series the

dengue patients were followed up for 2 years post-infection. The study highlighted that more than half of the patients diagnosed with symptomatic disease had persistence of some clinical manifestations 2 years after infection including neurological complaints, myalgia, malaise, headache, and arthralgia [6]. Fever was not a feature seen during follow up. Persistence of symptoms was associated with immunological basis with raised anti-dengue IgG titers (measured by the ELISA inhibition method), and the detection of autoimmune markers (CRP, ANA) in a large percentage of patients [6]. This points to the possibility of an autoimmune phenomenon in this 'post-dengue syndrome'. Genetics and environmental factors, such as acute viral infection, can induce transient autoimmune responses, including the generation of auto-antibodies [8-10]. Another case reported prolonged recovery in dengue fever in terms of prolonged thrombocytopenia [7]. A recent study from Singapore, done over four years, examined the prevalence of prolonged fever (fever > 7 days duration) in patients diagnosed with dengue, as well as its association with dengue severity. Prolonged fever was present in twenty percent of the patients. It was seen that prolonged fever was associated with various warning signs and more severe forms of dengue (SD, DSS, and DHF) [11].

Our patient had no complications associated with prolonged fever.

In conclusion, dengue fever may now be included as an important differential diagnosis of prolonged fever or fever for more than two weeks. This will prevent injudicious use of antibiotics and unnecessary investigations, especially in a resource limited setting.

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