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CASE REPORT

POST DENGUE FATIGUE SYNDROME

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ABSTRACT

Post dengue fatigue syndrome (PDFS) was observed in approximately 25% of hospitalized patients with dengue infection. Important risk factors for the development of fatigue included older age, female sex, the presence of chills and the absence of rashes. Physical fatigue corresponds to the subjective feeling of being exhausted and lacking energy, whereas mental fatigue describes the subjective feeling of being mentally exhausted, incorporating items on concentration, memory, and speech. In addition to that spectrums of clinical features were reported such as poor sleep, body pain, abdominal pain, excessive sweating, morning stiffness, and multiple joint pains. There are no definite guidelines for management of PDFS. However, the number of studies explained the management of fatigue. Fluoxetine has been shown to improve overall symptoms and measures of immune function in one study, however, it was failed in the randomized double blind study against placebo and graded exercise. This study explained the diagnostic and management delimma.

INTRODUCTION

Dengue is a mosquito-borne viral hemorrhagic fever transmitted by female mosquitoes mainly of the species Aedes aegypti and, to a lesser extent, Aedes albopictus. Human to human direct spread does not occur. Dengue is most commonly a self-limiting flu-like illness of low mortality which can be asymptomatic. Illness is characterized by an abrupt onset of fever often accompanied by a severe headache and pain behind the eyes, muscle pain, joint pains, nausea, vomiting, abdominal pain and loss of appetite. Two distinct clinical entities, dengue hemorrhagic fever (DHF) and dengue shock syndrome (DSS), have been associated with poorer outcomes[1234]. However, regardless of the inflexible grouping of dengue into DF, DHF and dengue shock syndrome (DSS), overlap between the different manifestations could be observed[5].

During the last outbreak of dengue fever in the east part of the SriLanka in 2017, we have encountered nearly 2562 clinical dengue fever cases from the period of 1st of January to 31st of April in the teaching hospital Batticaloa SriLanka[6]. As the incidence of dengue increases, an incidence of atypical presentations is also getting higher; however, these may be under reported because of lack of knowledge and under diagnosis of dengue. A variety of atypical manifestations of dengue has been described such as elevated liver enzymes, intracerebral hemorrhages, and acute appendicitis[7]. Interestingly after febrile episode, some patient developed fatigue, syndrome (PDFS) of feeling tired or unwell after exertion, impaired memory or concentration, poor sleep, body pain, abdominal pain, excessive sweating, morning stiffness, and multiple arthralgias were the most commonly reported symptoms that were statistically associated with having fatigue in postinfection[8].This is a chronic and potentially debilitating clinical presentation, also known as post- infectious fatigue syndrome has been described in the later phases following an initial recovery of infections of dengue virus as well as it could have happened in other infections such as infectious mononucleosis, Q fever, and Lyme disease[9].

Case history

A 47-year-old gentleman admitted with the history of fever and generalized body pain for 3 days duration. On admission his temperature was 30^0C, Pulse rate 100beat/min, Blood pressure was 110/80mmHg, white cell count $4x10^9$/l, platelet count was $156x10^9$/l, alanine aminotransferase was 45u/l and aspartate aminotransferase was 40u/l. His temperature not settled and his platelet count started to drop day by day and reached 12 $x10^9$/l on the 5th day of the fever. He had developed ultrasonic evidence of leakage. On the 6th day of the fever, dengue IgM antibody becomes positive and platelets count started to rise. His 48 hours of critical phase was uneventful. His diagnosis was made as dengue hemorrhagic fever. He was discharged on his 8 days of the fever. Nearly 6 weeks later he consulted me in the outpatient clinic with the history of body pain, joint pain and malaise and weakness after mild exertion. He also mentioned excess sweating, loss of interest, feeling the lack of energy, poor appetite, and poor sleep. He denied any significant substance abuse. On

examination, there is no evidence of skin rashes or joint swelling, Blood reports including full blood count, ESR, CRP, creatine phosphokinase (CPK), thyroid function test and renal function test, liver function test, chest X-ray, and abdominal ultrasound was normal.

DISCUSSION

Fatigue is common during the acute stages of dengue infection; however, post dengue fatigue is defined by the presence of a persistent sense of exhaustion that results in a decreased capacity for physical and mental work. The presence of significant fatigue was measured by the Fatigue Questionnaire (FQ). The FQ is a validated questionnaire, consisting of 11 items that measure fatigue related symptoms encircling the physical and mental dimensions (Table 1). The seven items on physical fatigue and the four items on mental fatigue have four response categories (0=none; 1=mild; 2=moderate; 3=severe). This validated FQ can be applied for other fatigue related diseases such as chronic fatigue syndrome, underlying malignancy, and chronic diseases[10]

Table 1 Fatigue Questionnaire

	non	mild	moderate	severe
1. Do you have problems with tiredness?	0	1	2	3
2. Do you have problems starting things?	0	1	2	3
3. Do you feel weak?	0	1	2	3
4. Do you make slips of the tongue when speaking?	0	1	2	3
5. Do you need to rest more?	0	1	2	3
6. Are you lacking in energy?	0	1	2	3
7. Do you have difficulty concentrating?	0	1	2	3
8. How is your memory?	0	1	2	3
9. Do you feel sleepy or drowsy?	0	1	2	3
10. Do you have less strength in your muscles?	0	1	2	3
11. Do you have problems thinking clearly?	0	1	2	3

A study conducted by Raymond *et al*, which stated that Post dengue fatigue was observed in approximately 25% of hospitalized patients with dengue infection. Important risk factors for the development of fatigue included older age, female sex, the presence of chills and the absence of rashes. Furthermore, there was no association with hematological abnormalities[8]. Post febrile fatigue syndrome, exhibit spectrum of clinical features such as paraesthesia in the limbs or face, local weaknesses of a wrist or ankle, or the face, diplopia, blurred vision and headaches. Many patients also describe periods of excessive sweating, and severe coldness of the limbs[11]. This patient's worrying problem is excessive sweating; initially we thought it could be due to anxiety or excess thyroxin, however, we excluded thyrotoxicosis and started anxiolytic. We arranged psychiatric referral and excluded major psychiatric illnesses. Initially, we have started simple analgesia for his body pain and joints pain but no improvement at all. PDFS need the sensible and multidisciplinary approach to treatment. There are no definite guidelines for management of PDFS.

However, the number of studies explained the management of fatigue. Educating patients about PDFS and validating their illness experience in addition to establishing a working agreement is the initial steps in the treatment. Persuade a balanced diet, and converse with patients their nutritional habits. Advice about graded exercise is essential Numerous studies have evaluated different treatment, including recombinant erythropoietin, psychostimulants, corticosteroids, anti-inflammatory drugs, and L-carnitine. Antidepressants are the most common medications used in this regard; selegiline had a small but significant therapeutic effect independent of its antidepressant effect. Fluoxetine has been shown to improve overall symptoms and measures of immune function in one study, however, it was failed in the randomized double blind study against placebo and graded exercise. We have started antidepressant and followed up our medical clinic. His symptoms improved and he felt better after six weeks of antidepressant.

CONCLUSION

In post dengue fatigue syndrome, neurological symptoms are often changeable. Mental tiredness and poor concentration are almost commonly present. Many patients also describe periods of excessive sweating, and severe coldness of the limbs. At present, there is no definite treatment are available. In future, further studies are needed to better understand this post-dengue fatigue.

References

1. Diagnosis GFOR. New edition 2009. 2009.
2. WHO. *Global Tuberculosis Report.*; 2014.
3. WHO. Dengue bulletine; 2012
4. Kularatne SAM. Dengue fever. 2015;4661 (September):1-10. doi:10.1136/bmj.h4661.
5. Hadinegoro SRS. The revised WHO dengue case classification : does the system need to be modified ? 2012:33-38. doi:10.1179/2046904712Z.00000000052.
6. Umakanth M,Scholars Journal of Medical Case Reports Spectrum of rare presentation of Dengue viral infection-in Srilanka -A case series and Review of literature. 2017;5(6):394-397. doi:10.21276/sjmcr.
7. umakanth M. Spectrum of rare presentation of Dengue viral infection-in Srilanka. *Sch J Med Case Rep.* 2017;5(6):394-397.
8. Seet RCS, Quek AML, Lim ECH. Post-infectious fatigue syndrome in dengue infection. *J Clin Virol.* 2007;38(1):1-6. doi:10.1016/j.jcv.2006.10.011.
9. Stormorken E, Jason LA, Kirkevold M. From good health to illness with post-infectious fatigue syndrome: a qualitative study of adults' experiences of the illness trajectory. *BMC Fam Pract.* 2017;18(1):49. doi:10.1186/s12875-017-0614-4.
10. Dittner AJ, Wessely SC BR. The assessment of fatigue: a practical guide for clinicians and researchers. *J Psychosom Res.* 2004;56:157-170.
11. Hospital W, Hill M, Ijn LNO, Bannister BA. syndrome. 1988:559-567.

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