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Dengue in HIV infected patients: clinical profiles

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ABSTRACT

Dengue is an important tropical viral infection. It can present with acute febrile illness with possible hemorrhagic complication. Since it is a common infection in the tropical world, concomitance with other diseases can be expected. An important consideration is the co-presentation of dengue with HIV infection. In this specific report, the authors summarize the clinical profiles of dengue patients with HIV infection. Based on the present study, it can be seen that clinical profiles of dengue in any group of HIV infection is not different.

1. Introduction

Dengue is an important tropical viral infection. This disease is one of the two most important mosquito borne infections (another one is malaria). Dengue can be seen in many tropical countries with its highest prevalence in Southeast and South Asia regions. Dengue can present with acute febrile illness with possible hemorrhagic complication. The diagnosis of dengue is usually based on its history and its clinical profiles (especially hematological investigations)[1,2]. The laboratory hallmarks of dengue include thrombocytopenia, atypical lymphocytosis and hemoconcentration[1,2].

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Since it is a common infection in the tropical world, concomitance with other diseases can be expected. The good examples are the concurrent infections with malaria[3] and Japanese encephalitis[4]. An important consideration is the co-presentation of dengue with HIV infection. In this specific report, the authors summarize the clinical profiles of dengue patients with HIV infection.

2. Materials and methods

This work was designed as a retrospective study. The authors performed retrospectively review on the clinical profiles of 32 dengue patients with concomitant HIV infection. The summarization on clinical data comes from all cases. The descriptive statistical analysis was performed where it was appropriate.

3. Results

According to this retrospective study, the clinical presentations of the patients classifying by CD4+ group is shown in Table 1. There was no difference among groups of HIV infected patients. The laboratory presentations of the patients classifying by CD4+ group is shown in Table 2. There was also no difference among groups of HIV infected patients.

Table 1

The clinical presentations of the patients classifying by CD4+ group.

Presentations	Number of patients		
	CD4+<500 cells/mm ³ (n=5)	CD4+ 200–500 cells/mm ³ (n=13)	CD4+>500 cells/mm ³ (n=14)
Fever	5	13	14
Headache	5	12	14
Myalgia	5	12	14
Petechiae	3	7	9

Table 2

The laboratory presentations of the patients classifying by CD4+ group.

Presentations	Average		
	CD4+<500 cells/mm ³ (n=5)	CD4+ 200–500 cells/mm ³ (n=13)	CD4+>500 cells/mm ³ (n=14)
Hemoglobin (g/dL)	10.6±2.1	10.4±2.4	11.0±3.1
Atypical lymphocyte (%)	7.8±2.1	8.2±3.1	7.4±2.8
Platelet (×10 ⁷ /μL)	78.4±10.6	76.8±12.6	80.4±11.4

Data are expressed as mean±SD.

4. Discussion

Dengue is still an important global health problem^[1]. Each year, millions of cases of dengue can be seen around the world. This becomes one of the most common tropical infections at present. Due to the large flux of this infection, it is no doubt that dengue can be accompanied with other medical illnesses. In case of concurrent infection, its clinical pattern is an interesting topic. The modification of the clinical features is the focused topic to be studied by specialists and researchers in the field of tropical medicine. One of the infection that is prevalent worldwide and is still a big problem, not less problematic of dengue, is HIV infection. HIV can be seen in any countries and the infection in the tropical world is very prevalent^[5]. The concomitant HIV infection and other tropical disease is a very interesting issue to study and the interaction is still controversial for many concurrent disorders^[6]. The concurrent HIV

and dengue is rarely mentioned. The problem was firstly mentioned by Gonzalez *et al*^[7]. In that report, it was noted that although patients had dengue disease, the CD4+ cells remained within normal levels and no accelerated progression of HIV disease was observed^[7]. Based on report by Gonzalez *et al*^[7], it might assume that dengue causes no change or alteration to the natural history of HIV. The vice versa, effect of HIV on dengue's natural history has never been mentioned.

Here, the authors retrospectively analyzed the problem of dengue in HIV infected cases at different status. Based on the present study, it can be seen that clinical profiles of dengue in any group of HIV infection is not different. It might assume that HIV also causes no change or alteration to the natural history of dengue.

Conflict of interest statement

We declare that we have no conflict of interest.

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