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CASE REPORT

An Atypical Case of Gastroenteritis in a Traveler Returning from a Trip in Southeast Asia

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ABSTRACT

A healthy 34-years-old man came to the emergency department because he presented with fever and gastrointestinal symptoms (vomit and diarrhea) following a 3 weeks trip to Indonesia, Malaysia, and Singapore. Due to the lack of antimalarial prophylaxis and several insect bites, we tested the patient and malaria was definitively ruled out. The patient was in a discrete condition, so the initial hypothesis was febrile gastroenteritis. Only at the follow-up visit, due to the appearance of other symptoms (diffused exanthema), the diagnosis of dengue was taken into account and then confirmed by serological tests. The differential diagnosis of fever in the returning traveler is extensive and dengue must be taken into consideration even if with atypical presentation.

Key words: Dengue, fever in the returning traveler, gastroenteritis

INTRODUCTION

Dengue is a febrile illness caused by infection with dengue viruses transmitted by mosquitoes bites. The classical manifestations include headache, retro-orbital or ocular pain, myalgia and/or bone pain, arthralgia, rash, hemorrhagic manifestations, and leukopenia. Additional manifestations can include liver failure, acute kidney injury, retinal vasculitis, bacterial coinfections, and neurologic/cardiovascular manifestations, but atypical presentation are always more often described in literature.

CASE REPORT

A 34-years-old man known only for a depressive syndrome in therapy with venlafaxine, came to the emergency department a few hours after returning from travel to Southeast Asia (Singapore, Malaysia, and Indonesia) with his family (wife and two children). The patient and his wife present the same symptoms 2 days before returning. Both refer to diarrhea and vomit without other symptoms, but only the male patient had a high fever at 39°C, while his wife had a lower temperature (38°C). The children where both symptomatic and asymptomatic.

The patient had his normal vaccination during childhood, but he cannot remember if he was vaccinated for hepatitis A and B. He cannot be sure if he had eaten raw seafood during the travel. He did not take malaria prophylaxis and has several insect bites.

On physical examination, we only find a mild tenderness at the right upper quadrant. The laboratory exams show mild thrombocytopenia and leukopenia, slightly increased of lactate dehydrogenase (LDH) and transaminases. Due to the lack of prophylaxis, we tested him and definitively ruled out malaria.

Due to the similar symptoms of both partners and the clinical presentation, our initial suspicion was febrile gastroenteritis for which were requested fecal cultures. Given the uncertainty regarding the vaccine profile for hepatitis, we requested serologic testing for hepatitis A, B, C, and E. We completed the serologic testing with Epstein-Barr virus, cytomegalovirus, and HIV. All the tests performed so far were negative.

The patient came 2 days later for a scheduled consultation. The wife had no more symptoms, but the patient still had fever, even if less intense, with no more gastrointestinal symptoms. In the meantime, however, he developed a diffused exanthema to the torso and limbs associated

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with slightly worsening thrombocytopenia, transaminases, and LDH. In the light of this new symptom, the diagnosis of dengue was suspected and then confirmed by serology (Dengue IgG 11.0 E/ml, Dengue IgM 6.70 E/mL, and Dengue-NS1-Antigen >100,000 RE/ml).

Hereafter, the patient was free of complications with symptom remission and normalization of laboratory tests.

DISCUSSION

Dengue fever is an acute febrile illness defined[1] by the presence of fever and two or more of the following symptoms: Headache, retro-orbital or ocular pain, myalgia and/or bone pain, arthralgia, rash, hemorrhagic manifestations, and leukopenia. This condition is different from the more severe dengue hemorrhagic fever in which there is evidence of plasma leakage due to increased vascular permeability and hemorrhagic manifestations.[2]

Additional manifestations include liver failure,[3] neurologic and cardiovascular manifestations, acute kidney injury, retinal vasculitis, and bacterial coinfection.

Sometimes abdominal pain can be present and mimic other abdominals illness.[4] Other atypical manifestations, of dengue are described in literature,[5,6] also in relation to recent dengue outbreaks.

Our patient presented typical laboratory tests results, but with symptoms that did not meet international diagnostic criteria. In fact, he only had fever, vomit, and diarrhea without other symptoms. Moreover, his wife had similar symptoms, which led to a misleading diagnosis of suspected febrile gastroenteritis and/or liver disease. This, in turn, led to diagnostic expenditure as well as a delay in diagnosis.

Delay in diagnosis is probably more accentuated in western countries where dengue is not endemic and physicians are not regularly compared with this illness and its possible nuances.

CONCLUSIONS

Differential diagnosis of fever and gastrointestinal symptoms in the returning traveler is extensive and often challenging, even more for physicians not regularly confronted with "tropical diseases." Dengue infection should be taken into consideration when faced with a clinical picture of febrile gastroenteritis returning travel. A prompt recognition of dengue fever is also important for avoiding unnecessary broad spectrum testing for other diseases.

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