

CASE REPORT

Chikungunya Patient presented with Arthritis: A Case Report

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Abstract

Chikungunya is an arthropod borne viral disease considered as the new emerging infectious disease in many countries of Asia, Africa, Europe and America. In this present case report a 45 year old lady was presented with multiple joint pains following exanthematous febrile illness. Laboratory result revealed this case as positive for chikungunya.

Keywords: Chikungunya, viral disease, arthropod borne

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Introduction

Chikungunya is a mosquito-borne disease. It is an alphavirus of the family Togaviridae. The name ‘chikungunya’ derives from a root verb in the Kimakonde language, meaning "to become contorted" and describes the stooped appearance of sufferers with joint pain¹. It causes fever and severe joint pain. Other symptoms include muscle pain, headache, nausea, fatigue and rash. The virus is transmitted from human to human by the bites of infected female mosquitoes. Most commonly, the mosquitoes involved are *Aedes aegypti* and *Aedes albopictus*, two species which

can also transmit other mosquito-borne viruses, including dengue. The proximity of mosquito breeding sites to human habitation is a significant risk factor for chikungunya.

Case Presentation

A 45 year-old housewife from Chandpur presented with history of multiple joint pain and swelling for 6 weeks. She gave history of high fever, rash, joint pain and body ache at the onset of the illness. Her symptoms improved within a week except joint pain. The affected joints were small joints of hands and feet, elbows, ankles and knee joints with slight swelling on both

hands and ankle. The joint pain was disabling and she had difficulty in walking without assistance. Two of her family members were also affected by same type of illness but recovered within a week completely. She was treated symptomatically with paracetamol, NSAID and steroid for 6 weeks. Clinical examination showed tenderness on metacarpal joints, interphalangeal joints, elbow joints, ankle joints and knee joints. Swelling was noted both hands and ankles. Other systemic examinations were unremarkable. Investigation report showed Hb%- 12.2 gm/dl, WBC- 11,000/cmm (N-62%, L-32%), platelet- 310,000/cmm, ESR- 20 mm in 1st hour, CRP- 11.3 mg/l (normal reference- <6 mg/l). Anti-CCP antibody was negative. The patient's serum was positive for Chikungunya IgM. The patient was then diagnosed as chikungunya and counseled appropriately. NSAID (indomethacin) was prescribed for pain relief.

Discussion

Chikungunya was first described in a male Tanzanian in 1953¹. Infection has since been reported extensively through South East Asia like Indonesia, Thailand, Vietnam, Singapore, India, Sri Lanka, Taiwan, Myanmar, Cameroon, Philippines and Malaysia as well as islands of the Indian Ocean².

Infection typically presents within 48 hours of a mosquito bite with abrupt onset of fever, chills, headache, muscle and joint pain with or without swelling. An erythematous skin eruption may appear towards the end of the first week. Involvement of major organ systems including heart and brain occur infrequently³. The febrile viraemic phase of the illness resolves within 3–7 days. Joint symptoms are usually brief but prolonged arthritis/arthralgia lasting up to 18 months has been reported in 10–20% of cases^{4–6}. Distribution is usually symmetric involving small more than large joints. Tenosynovitis causing carpal tunnel syndrome and lower limb enthesitis has been reported⁷. Diagnosis is serological. Specific IgM antibodies appear by 5–7 days from onset of illness followed closely by IgG antibodies⁸. Treatment is symptomatic.

Neither antiviral nor disease-modifying drugs have a proven place^{8–9}. Prevention requires use of effective insect repellent and covering of the skin. *Aedes* mosquito vectors feed during the day as well as at twilight.

Conclusion

According to WHO, Bangladesh is at risk of Chikungunya. But there is lack of awareness about Chikungunya among patients as well as doctors of Bangladesh. We report this case to consider Chikungunya as a cause of persistent arthritis.

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