Chikungunya Patient presented with Arthritis: A Case Report

Mohammad Sayeed HASSAN1, Sheikh Farjana SONIA2, Mohammad Abdullah YUSUF3, Ferdous ARA4, Ahmad Raihan SHARIF5, Farid AHMED6, Md. Atiqur RAHMAN7

1Junior Consultant, National Institute of Neurosciences & Hospital, Dhaka, Bangladesh; 2MD (Pediatrics), Bangladesh Institute of Child Health, Dhaka, Bangladesh; 3Assistant Professor, Department of Microbiology, National Institute of Neurosciences & Hospital, Dhaka, Bangladesh; 4Assistant Professor, Department of Transfusion Medicine, National Institute of Neurosciences & Hospital, Dhaka, Bangladesh; 5Medical Officer, Institute of Epidemiology Disease Control & Research, Dhaka, Bangladesh; 6Medical Officer, Department of Clinical Pathology, Sir Salimullah Medical College, Dhaka, Bangladesh; 7Register, Department of Cardiology, Sir Salimullah Medical College, Dhaka, Bangladesh

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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


Correspondence: Dr. Mohammad Sayeed Hassan, Junior Consultant, Department of Clinical Neurology, National Institute of Neurosciences & Hospital, Sher-E-Bangla Nagar, Agargaon, Dhaka-1207, Bangladesh; Email: dr.sayeed@yahoo.com; Cell no.: +8801711442626

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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 1953. 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 Ocean.

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 infrequently. 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. Distribution is usually symmetric involving small more than large joints. Tenosynovitis causing carpal tunnel syndrome and lower limb enthesitis has been reported. Diagnosis is serological. Specific IgM antibodies appear by 5–7 days from onset of illness followed closely by IgG antibodies. Neither antiviral nor disease-modifying drugs have a proven place. 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.

References