

## CHIKUNGUNYA: NEED AN ATTENTION AMONG THE HEALTH PROFESSIONALS AND THE PUBLIC

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Article Received on  
10 June 2014,

Revised on 05 July 2014,  
Accepted on 30 July 2014

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### CHIKUNGUNYA

#### Need an attention among the public

Chikungunya is a reemerging disease caused by Chikungunya virus (CHIKV) belonging to the *Togaviridae* family and *Alphavirus* genus. It is biologically transmitted via the bite of a mosquito, *Aedesegypti*. The word Chikungunya is derived from Makonde root word 'Kungulya' meaning 'that which bends up' which refers to the arthritic manifestations of the disease, causing pain in the joints. Chikungunya first emerged in 1952 on Makonde plateau in Tanzania. It then started spreading to other countries like India and other south-east Asian countries. In India, it first occurred in Kolkata in 1963 and Chennai in 1965 during which about more than 3,00,000 cases of chikungunya were reported.<sup>1</sup> There was a huge outbreak in 2005 spreading over 13

states in which more than 1.4 million people were affected. Andhra Pradesh and Karnataka were the most affected states with maximum number of suspected cases, followed by Orissa and Maharashtra.<sup>[1]</sup>

The onset of CHIKV infection is acute and clinical symptoms develop after 4-7 days of incubation period. Fever, rashes and arthralgia are most common triad of clinical features reported. Fever is mostly high grade, which subsides in 1-2 days giving it the name of 'Saddle back fever' which is associated with chills and rigors, severe headache, nausea and vomiting. Except arthralgia all the other symptoms are self-limiting. The CHIKV virus after entering into blood stream infects monocytes and macrophages which enter into other parts of the body like skeletal muscle, liver and nervous system, likewise the virus-infected macrophages get disseminated into synovial tissue and release inflammatory mediators

causing chronic pain. One of a typical feature of CHIKV infection is polyarthralgia with myalgia. In 2005, Reunion Island was worst affected region, where more than 35% of the inhabitants were affected by the disease, among which about 63 % of the patients were reported to have chronic pain after the resolution of chikungunya symptoms<sup>[1,2]</sup>. The small joints of hands, wrist, ankle and feet are the most commonly affected joints whereas there is a lesser involvement of the larger joints<sup>[3]</sup>. One of the debilitating features of CHIKV infection is severe pain in the joints which completely immobilize most of the patients, often disturbing sleep. Maculopapular rash occurs on trunk area, outer surfaces of limbs and itchy in nature.<sup>[1]</sup> Deaths due to CHIKV infection are rarely reported. CHIKV infection is predominantly severe in children, elderly and immunocompromised population.

The treatment is mostly symptomatic, with fluids, bed rest and supportive treatment like antipyretics for fever and analgesics for joint pain are given. There is no availability of any specific antiviral therapy for chikungunya virus.<sup>1</sup> According to one study, Ribavirin and interferon- $\alpha$  because of its synergistic action has been reported to show substantial improvements.<sup>[4]</sup> Current practices suggest that drugs like Chloroquine and hydroxychloroquine, sulfasalazine and methotrexate have shown promising outcomes in preventing the progression of chikungunya because of its anti-inflammatory properties.<sup>[5]</sup>

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