

# World Journal of Pharmaceutical and Life Sciences WJPLS

www.wjpls.org



# A REVIEW ARTICLE ON CHIKUNGUNYA

Dr. Rajesh Sharma<sup>1</sup> and Dr. Namartha Raina\*<sup>2</sup>

<sup>1</sup>B.A.M.S. Medical Officer. <sup>2</sup>P.G Scholar, K.C Department.

\*Corresponding Author: Dr. Namartha Raina

P.G Scholar, K.C Department.

Article Received on 19/09/2018

Article Revised on 10/10/2018

Article Accepted on 31/10/2018

#### **ABSTRACT**

Chikungunya is a mosquito borne viral disease first described during an outreak in southern Tanzania in 1952. It is an RNA virus that belongs to the alpha virus genus of the family Toga viridae. It is characterized by an abrupt onset of fever frequently accompanied by Joint pain. Most patient recovers fully, but in some cases Joint pain may persist for several months or even years.

KEYWORDS: Chikungunya, outreak, viridae.

#### INTRODUCTION

The derivation of chikungunya came from Tanzania, when there were reports of a dengue like symptoms out break in 1952-53 in Newala and Masasi Districts of Southern province. However, dengue was later excluded on the basis that this epidemic involved patients suffering from debilitating Joint pains and shorter incubation period which are not clinical feature of dengue consequently the illness was called chikungunya. It is transmitted to humans mainly by day biting mosquito species (Aedes). Chikungunya virus contains positive sense single stranded RNA gene, all enclosed in phospholipid bilayer envelope.

**Sign and symptoms:** - It is characterized an abrupt onset of fever frequently accompanied by Joint pain other common symptoms are:-

- Muscle pain
- Joint pain
- Nausea
- fatigue
- Rash (maculo papular rashes)
- Fever
- · Body aches.

## Complication

- Heart disease
- Inflammation of eyes in the form of iridocyclitis, uveitis or retinal lesions.
- Neurological disorders G.B synclrome, flaccid paralysis.
- Neuropathy
- Hemorrhagic complications

Congestive hepatopahy.

#### Phases

- 1) Chronic phase
- 2) Acute phase

Acute phase - Has two stages

- a) Viral stage- During first 5-1 days during which uremia occurs.
- b) Convalescent stage lasting approximately 10 days, during which symptonas improve and the virus cannot be detected in blood.

#### **Diagnosis**

- Serological tests such as Elisa
- Presence of Igm & IgG antibodies
- Decreased lymphocyte count consistent with uraemia.

### **Differential Diagnosis**

- Malaria
- Dengue
- Influenza

## REFERENCES

- 1. Coffey L, Failloux A, Weaver C. Chikungunya virus-vector interactions. Viruses, 2014; 6(11): 4628–4663.
- 2. Crosby L, Perreau C, Madeux B, Cossic J, Armand C, Herrmann-Storke C, et al. Severe manifestations of Chikungunya virus in critically ill patients during the 2013–2014 Caribbean outbreak. Int J Infect Dis, 2016; 48: 78–80.

www.wjpls.org 266

- 3. Cunha RV, Trinta KS, Montalbano CA, Sucupira MVF, Lima MM, Marques E, et al. Seroprevalence of Chikungunya virus in a rural community of Brazil. PLOS Negl Trop Dis, 2017; 11(1): e0005319.
- 4. Gerardin P, Baraug, Michault A, Bintner M, Randrianaivo H, Choker G, et al. Multidisciplinary prospective study of mother-to-child Chikungunya virus infections on the island of La Réunion. PLoS Med., 2008; 5(3): e60.
- Harrison VR, Eckels KH, Bartelloni PJ, Hampton C. Production and evaluation of a formalin-killed chikungunya vaccine. J Immunol, 1971; 107(3): 643–647.
- Hassing RJ, Leparc-Goffart I, Tolou H, van Doornum G, van Genderen PJ. Cross-reactivity of antibodies to viruses belonging to the Semliki Forest serocomplex. Euro Surveill, 2010; 15(23): pii: 19588.
- 7. IBGE Instituto Brasileiro de Geografia e Estatística. 2016. [accessed 2016 Oct]. Internet. http://www.ibge.gov.br/home/default.php.
- 8. Kam YW, Ong EK, Rénia L, Tong JC, Ng LF. Immuno-biology of chikungunya and implications for disease intervention. Microbes Infect, 2009; 11(14-15): 1186–1196.
- Kuan G, Ramirez S, Gresh L, Ojeda S, Melendez M, Sanchez N, et al. Seroprevalence of antichikungunya virus antibodies in children and adults in Managua, Nicaragua, after the first chikungunya epidemic, 2014–2015. PLoS Negl Trop Dis., 2016; 10(6): e0004773.
- 10. Kumar NP, Suresh A, Vanamail P, Sabesan S, Krishnamoorthy KG, Mathew J, et al. Chikungunya virus outbreak in Kerala, India, 2007: a seroprevalence study. Mem Inst Oswaldo Cruz, 2011; 106(8): 912–916.
- 11. LoPresti A, Lai A, Cella E, Zehender G, Ciccozzi M. Chikungunya virus, epidemiology, clinics and phylogenesis: a review. Asian Pac J Trop Med., 2014; 7(12): 925–932.
- 12. Lopes N, Nozawa C. Características gerais e epidemiologia dos arbovírus emergentes no Brasil. Rev Pan-Amaz Saude, 2014; 5(3): 55–64.
- 13. Lum FM, Ng LF. Cellular and molecular mechanisms of chikungunya pathogenesis. Antiviral Res, 2015; 120: 165–174.
- 14. Manimunda SP, Vijayachari P, Uppoor R, Sugunan AP, Singh SS, Rai SK, et al. Clinical progression of chikungunya fever during acute and chronic arthritic stages and the changes in joint morphology as revealed by imaging. Trans R Soc Trop Med Hyg, 2010; 104(6): 392–399.
- 15. Mercado M, Acosta-Reyes J, Parra E, Pardo L, Rico A, Campo A, et al. Clinical and histopathological features of fatal cases with dengue and chikungunya virus co-infection in Colombia, 2014 to 2015. Euro Surveill, 2016; 21(22).

16. MS–Ministério da Saúde [accessed 2016 Oct]; Boletim Epidemiológico Secretaria de Vigilância em Saúde, 2015; 46(5). Internet. http://portalsaude.saude.gov.br/images/pdf/2015/fev

ereiro/11/Boletim-Dengue-SE04-2015.

www.wjpls.org 267