

Editorial

Chikungunya fever, an emerging disease in COVID 19 situation in Bangladesh

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Emerging infectious disease (EID) is defined as an abrupt rise of new pathogen in a host population and re-emergent pathogens is that have a sharp incidence in a new geographical area.¹ Emerging infectious disease EID covers a diversity of pathogenic microorganisms e.g. bacteria, fungi, viruses that may have an animal origin, zoonosis, and also from other sources e.g., food-borne and water-borne pathogens.²

Chikungunya is one of the neglected tropical disease endemic to Africa, Southern and Southeast Asia. The agent of the disease is the chikungunya virus (*CHIKV*), a classical arbovirus which possesses a single-stranded positive-sense RNA genome that is transmitted to humans by infected female *Aedes* mosquitoes, predominantly by *Aedes aegypti* and *Aedes albopictus*.³

Chikungunya is one of the most rapidly spreading mosquito-borne viral infectious diseases and emerged as an important public health problem in Bangladesh.⁴ It is a self-limiting disease with fever and arthralgia/arthritis are the two most common features; although there may be diverse presentations⁵ and rarely may be fatal outcomes.⁶ Chikungunya virus (*CHIKV*) was first identified in 1952-53 at the Makonde plateau in the southern part of Tanzania means 'that which bends up'-bending posture of the individuals infected with virus.⁷

The virus had its tool in 1954 to the Phillipines. Currently three distinct genetic linkage were identified- West African, the East Central Southern African lineage, and Asian lineage.⁸ During December 2008, an investigation team from the Institute of Epidemiology, Disease Control and Research (IEDCR) and International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) investigated the first outbreak of chikungunya fever in the Rajshahi and Chapianawabganj districts of Bangladesh.⁹

The current pandemic of COVID 19 has created immense pressure on health service delivery systems, making itself even more difficult to handle in regions that are endemic for arboviruses like Bangladesh. SARS-CoV-2, arbovirus infections continue spreading in these region while the COVID 19 pandemic is devastating the health system, mainly in tropical settings such as Southeast Asia and Latin America.¹⁰ The concomitant outbreak of COVID-19/ARBOD can result in misdiagnosis. During the disease onset, COVID-19, dengue and chikungunya shared similar clinical and laboratory features and was difficult to distinguish from each other. The initial clinical symptoms e.g., fever, myalgia, fatigue, chills, and headache and laboratory parameters e.g., lymphopenia, leukopenia, thrombocytopenia, and

elevated transaminases can be similar in all of these illnesses.¹¹

Policy level interventions to increase individual as well as population level awareness could be effective in creating preventive behaviors and preventing infectious diseases like chikungunya, dengue and COVID 19 in incidents of other outbreaks in countries like Bangladesh.

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