LETTER TO EDITOR

Uphill Task: Can We Ever Conquer Against New Emerging Viruses?

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Every time there is a major infectious disease outbreak that scares us, such as Ebola in West Africa, Middle East Respiratory Syndrome (MERS) on the Arabian Peninsula and South Africa, and Zika virus in South and Central America and the Caribbean, this time arising from a mosquito-borne agent that has spread stealth around the globe[1]. It remains one of the great mysteries of the Zika epidemic, Why did a virus that existed for decades elsewhere in the world suddenly seem to become more destructive when it landed in Latin America? An intriguing study in mice, which has prompted some skepticism among experts, suggests that a single genetic mutation- called S139N, first arose in an Asian strain of the Zika virus in 2013, just before a small outbreak in French Polynesia, helped transform the Zika virus into a devastating force in Latin America[2].

Despite, completely successful eradiation of smallpox in 1979, the last case of rinderpest in 2008 and the modern campaigns to eradicate poliomyelitis and measles through mass-immunization programs, however, we still profoundly face the prospect of emerging or reemerging viral pathogens smart enough to exploit changing anthropological behavioral patterns[3]. Can we ever completely conquer against these newly emerging viruses? For example, many RNA viruses have emerged or reemerged afflicting human population globally despite being considered to be the neglected infectious diseases. For example, Chikungunya virus (CHIKV), West Nile virus (WNV) and dengue virus (DENV), all pathogenic arthropod-borne viruses whose combined figures for morbidity and mortality even far exceed those for Ebola severe acute respiratory syndrome and MERS viruses. The number of cases of dengue fever / or hemorrhagic fever is between 300-400 million annually, of which an estimated 22, 000 succumbs to infection[4,5].

Nipah virus (NiV) infection is a newly emerging zoonosis that causes severe disease in both animals and humans. The natural host of the virus is fruit bats of the Pteropodidae Family, Pteropus genus. NiV was first identified during an outbreak of disease that took place in Kampung Sungai Nipah, Malaysia in 1998. On this occasion, pigs were the intermediate hosts. However, in subsequent NiV outbreaks, there were no intermediate hosts[6]. In Bangladesh in 2004, humans became infected with NiV as a result of consuming date palm sap that had been contaminated by infected fruit bats[7]. Human-to-human transmission has also been documented, including in a hospital setting in India. Recently, many people have died of Nipah virus since the outbreak began a few weeks ago in the state of Kerala as of 25 May, 2018. Several others with Nipah symptoms, which can include high fever, vomiting and convulsions, are being treated in area hospitals.

Taken together, NiV infection in humans has a range of clinical presentations, from asymptomatic infection to acute respiratory syndrome and fatal encephalitis. There is no vaccine for Nipah, and no treatment beyond supportive care to make patients comfortable. Noticeably, the virus kills up to 75 percent of those infected. Back home, health experts reported that there was no immediate threat of the deadly Nipah Virus (NiV) in Kashmir as published in "GreaterKashmir" May 29, 2018, but advised people to take precautions following deaths caused by the virus in the south Indian state of Kerala.

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