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Review on emerging diseases in Indian horizon

Dr. Sunil Kumar Dular
Professor cum HOD, Dept. of Community Health Nursing, Faculty of Nursing, SGT University, Gurugram, Haryana, India-122505

Mr. Naveen
Tutor, Faculty of Nursing, SGT University, Gurugram, Haryana, India-122505
Email: naveen_fnur@sgtuniversity.org

***Abstract*---**Infectious diseases remain the leading cause of morbidity and mortality in humans and animals, resulting in substantial health care costs in India. There have been outbreaks and epidemics of many infectious diseases in the country. However, great strides have been made in the fight against major epidemics. Such as malaria, plague, leprosy and cholera in the past. The vast topography of the country with extremely serious geological inequalities and uneven population distribution has created unique patterns in the spread of viral diseases. Significant challenges faced in controlling and preventing new and recurring infectious diseases include understanding the implications of emergency essentials on the development of Enhanced Surveillance Systems that can reduce human suffering and death and relapse of viral infections of public health importance included in the Comprehensive Disease Surveillance program were examined.The dynamic interaction of biological, socio - cultural and environmental factors, as well as new aspects of human - animal interaction, creates additional difficulties for the emergence of infectious diseases. The Indian Medical Association fighting very well to stop this all diseases along with our government.

***Keywords*---**CCHF, India, Nipah virus, emerging, re-emerging, respiratory viral infections, rotavirus.

Introduction

The emergence of new human pathogens and the re-emergence of various diseases are of particular concern in the current decade. In fact, emerging infections can be defined as infections for which the incidence has been shown to increase in recent decades or are at increased risk. Such emergencies are often associated with the discovery / spread of pathogens in new areas, the recognition of the presence of diseases already present in the population, despite the fact that

they have not been detected, or due to the recognition of the infectious ethology of the detected diseases1. The underlying factors causing these diseases include population growth, poverty and malnutrition, increased national and global ties, economic factors that lead to population migration, social practices, prevalence of immunosuppressive diseases, unplanned urbanization, deforestation and changes in agricultural practices. eg as mixed farming. Genetic variation has also been observed in pathogens. are largely responsible for such outbreaks. Some of the most emerging diseases are enlisted below:

- Ebola Hemorrhagic Fever (Ebola virus disease)
- MiddleEast Respiratory Syndrome (MERS).
- 3)Chikungunya Virus
- H1N1 Influenza Virus (Swine Flu)
- Avian Influenza (Bird Flu)

It is estimated that about 55 percent of infectious diseases and 70 percent of new infections in humans are of animal origin, and two-thirds are of wildlife origin. These interactions are one of the main reasons for the increased susceptibility of people to infection with new pathogens in the absence of specific immunity in these populations. Respiratory viral infections, arbovirus infections and bat virus infections are the three main emerging viral infections in India. Infectious aerosols from tracheal plants are an effective means of spreading viral pathogens that affect the respiratory tract. Pandemic H1N1pdm09, highly pathogenic avian influenza (AI) (H5N1) virus and Middle East respiratory syndrome coronavirus (MERSCoV) are the three major threat pathogens in this category. in the Indian subcontinent, including Crimean and Congolese hemorrhagic fever (CCHF).), dengue, chikungunya, Japanese encephalitis and Kyasanur forest disease (KFD). The main viral pathogens in humans belong to the three genera Flavivirus, Alphavirus and Nairovirus.Severaltypes of bat viruses have also emerged, most notably Nipah virus disease, severe fever caused by thrombocytopenia virus (SFTV), and Ebola virus disease.

The Department of Health Research (DHR) of the Ministry of Health and Family Welfare of the Government of India presented in 2013 the concept of establishing and strengthening a nationwide network of laboratories to build infrastructure. This platform for the early detection of viruses that cause outbreaks or are Associated with the Virology Research and Diagnostic Laboratories Network (VRDLN) is also designed to provide virological diagnostics to patients enrolled in these centers. The University Medical Center (School of Medicine) and thus helps to collect surveillance data for common viral diseases from different parts of the country. A detailed list of VRDLNs currently operating in India is available. Emerging public health infections in India were last reviewed by Deekid et al. 2013; However, over the past 45 years, there have been many notable changes in the country related to infectious diseases, which led to an adjustment in this scenario. Try to provide an updated overview on this topic.

A frequent theme on the infectious disease scene in the country has been the dormant stages of various pathogens after their initial detection, followed by their reappearance, usually in more dangerous forms. Zika. A resurgence of chikungunya, an arboviral disease characterized by weakness and persistent joint

pain, has been observed in various parts of the country since 20,067, after the initial outbreak in 1963 and in 1973, when the disease was inactive for a long time before reappearing8. Unlike the first outbreak caused by Asian strains of the virus, the chikungunya virus strain from East Africa was responsible for the chikungunya outbreak in 20,067.Most of the country is home to large populations of Aedes aegypti mosquitoes, which carry dengue, chikungunya and Zika viruses, which remain a global threat9,10 despite serological studies in the 1960s showed that Zika virus is circulating in the country 11. a detailed understanding of the burden of disease and its impact did not occur until the outbreak in Brazil in 2015.11 Subsequently, 4 cases of Zika virus infection were identified and reported in India (3 cases from Gujarat and 1 case from Tamil Nadu) and no Zika virus-related microcephaly cases have been identified in the country to date (VIN, unpublished data).

There have also been cases of the discovery of new pathogens in the country, such as the chandipur virus (CHPV), the CCHF virus and the KFD virus (KFDV), which were identified in the 1950s and 1960s, the pathogenicity and importance to public health have long remained unexplored. … Some of these infections are causing severe damage to livestock and agricultural industries. The economic costs associated with such infections can be high, as evidenced by the high costs of medical care and intensive care, the number of days lost at work, the impact on travel and tourism, bans on agricultural exports from affected areas, etc. D.The psychological impact of these outbreaks and their aftermath has also not been systematically assessed in the country.

Impact of mass gatherings and emerging viral diseases

The World Health Organization (WHO) defines mass gatherings as events, organized or spontaneous, that involve large numbers of people to get the community to respond and plan the resources, city or country where that particular event is being held. In addition to religious gatherings, these events can take place in a sporting, sociocultural or political context.17 The Religious Kumbh Mela, which takes place every 12 years in Uttar Pradesh, India, is considered one of the most popular festivals among the people. Great people of the world 18. Among the main religious gatherings in India are the MahaPushkaram festival in Andhra Pradesh (last held in 2015, it was attended by 48.1 million people in Andhra Pradesh and 57 million people in Telangana), an annual pilgrimage to the temple Sabarimala in the Patanamthitta district of Kerala (attended by 4.55 billion devotees annually) and Velankanni, the largest Catholic pilgrimage center in India (visited by about 3 million people from late August to early September), Mahamaham at Kumbakonam in Tamil Nadu (last held 22 February 2016, it was visited by a million people) 19 Among other religious denominations there are similar events. The transmission of respiratory and gastrointestinal infections remains a major problem during these mass gatherings. Several of these events occurred, most notably a cholera outbreak at the Kumbh Mela festival of 1817, site of the origin of the Asian cholera pandemic (1817-1824) due to the return of infected pilgrims.20. infectious diseases, including viral ones.Church attendance is also passionately observed in India. The number of pilgrims is relatively smaller.Such opportunities create situations of close proximity to people and make it difficult to maintain hygiene. These meetings pose a serious public health

challenge. A large number of Muslims return from the Hajj and Umrah pilgrimages each year, fearing that they might become infected with MERSCoV during the event, which will subsequently lead to its spread in India. India. to date, although reports indicate the spread of influenza among infected pilgrims returning home21. It seems likely that these large-scale assemblies could provide the basis for the exchange of genomic material and hence the evolution of pathogens, including viruses.

Conclusions

India, as an extremely geographically diverse country, faces the constant threat of the emergence and recurrence of viral infections of public health importance. There is also an urgent need for detailed knowledge of disease biology, including vector biology and factors involved in epidemiological surveillance. Environmental factors influence disease outbreaks. IMA fought very well to stop or cure this all diseases.

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