Adoption of unhealthy lifestyles, specifically reduced physical exercise and increased mental stress, has resulted in a drastic increase in the incidence and prevalence of non-communicable disorders. It is reported that non-communicable disorders kill 41 million people each year equivalent to 71% of all deaths globally. Hence, there is a shift of concern about healthcare systems from communicable diseases to non-communicable disorders. However, on the other hand, with changing of environment and global setup, increasing population, poverty, malnutrition, unauthorized use of antibiotics or prolonged use of immune suppressant drugs, or increased prevalence of drug resistance microbes, there is emergence of new viral infections or re-emergence of viral diseases, which indicates that the threat of tackling emerging infections also prevails. Emerging infections can be defined as infections that have newly appeared in a population or have existed previously but are rapidly increasing in incidence or a geographic range. Recently an outbreak of corona virus infection has shocked medical fartenity. Thus, it demands steps for mass awareness, cooperation, and collaboration between different medical fields and healthcare organizations. Further, new outbreak of infectious diseases occurs more often and spreads faster than ever, in many different regions of the world. Thus, disastrous combination of newly-occurring diseases, and the re-emergence of long-established viral diseases, demands urgent planning and actions for epidemic prevention and its control are essential.

However, as epidemics of viral diseases occur at a gap of years, these infections are not at the priority among the research community and that is the reason why there is as yet no effective vaccine or treatment for most emerging or re-emerging viral diseases. Existing situation demands that more research is needed to identify precisely the modes of transmission and medical countermeasures, the predisposing factors and its effective management, especially the preventive aspect. As many of such viral infections are either fatal or leave behind complications that can cause either permanent disability or affect quality of life of the patients or have large-scale impact on mortality or morbidity, this field has also to be explored exhaustively.

In Ayurveda, there is thinking of epidemics under the term of Janapadodhwamsa where it is mentioned that due to either of deranged Vayu (air), Jala (water), Desha (habitat) and Kala (seasons), certain diseases arise which kill mass of people. These diseases can be considered as either airborne or waterborne infectious diseases or diseases occurring due to soil contamination or conditions arising due to weather or seasonal hazards. Further, under the heading of Adidaivika Bala Pravritta Vyadhi (diseases arising due to such causes that cannot be controlled by human intelligence), terms such as Sansargaja and Upragaja are mentioned which indicate that there are certain diseases which can be transmitted directly from infected persons to healthy persons such as contagious diseases or certain diseases can be transmitted by respiration/air borne. As per the hints available in Ayurveda, the management of these infectious diseases can be either preventive or curative. For example, now the changes in weather or seasons can be predicted and thus, before starting of epidemics which are most likely to occur in that weather, adequate arrangements and planning can be done so as minimize the morbidity. This is termed as anticipation that is the first stage of response and which enables to focus on the most likely threats, forecasting of the most likely diseases to emerge and the quick identification of the vectors that will worsen the impact or facilitate the spread of infections. However, in newly emerging viral diseases where there is little scientific knowledge, a vigilant observation can help prepare plan and management in future outbreaks. Further, early detection may help for rapid implementation of effective measures, which are the key to reduce the risk of distratous spread. In Ayurveda, it is mentioned that collection of potent medicines should be done and if required, Shodhana (bio-purification) and Rasayana (immunomodulatory changes) can be planned in the persons in the risk areas, so as to improve the immunity and thus making the risk of infection low. It is noted that certain viral infections occur in a specific period of year when either the weather is favorable for viral potency or there are potent vectors to carry the infection or when immunity of the human body is low. For example, looking at the history of outbursts of chikungunya or dengue infections in India, it can be stated that these viral epidemics are more common just after the monsoon when breeding of mosquitoes is increased, and as per the Ayurveda, this is the time of Pitta vitiation and chances of Jvara are more. Hence, for the management of these type of viral fevers, prevention can be started from the monsoon season by adopting steps such as taking Neema (Azadirachta indica A. Juss) leaves juice or taking Neema (A. indica A. Juss) bark powder or Sudrashana powder or Guduchi powder, along with this proper fumigation of the areas shall be done with dry Neema (A. indica A. Juss) leaves, Kapura, Vacha (Acorus calamus Linn.). Many of viral diseases such as chikungunya infections are rarely fatal and symptoms are generally self-limiting and last for 2–3 days. However, in the long term, it can cause secondary conditions such as post-chikungunya arthritis resulting in long-term disabilities which may cause medical and economic burden.
in affected areas. In such cases analgesics and/or nonsteroidal anti-inflammatory drugs may provide relief, but resistance to or dependence on corticosteroids beyond the 3rd month after disease onset may be evocative of post-chikungunya chronic inflammatory rheumatism. This finding indicates that early treatment to control the inflammatory process may, prevent bone erosions and reduce to chance of side effects of prolonged cortico-therapy which is required in such cases of post-chikungunya chronic inflammatory rheumatism.

In such cases, with the onset of chikungunya fever, along with the medicines which control fever, anti-inflammatory drugs like Nirgundi (Vitex negundo Linn.), Shallaki (Boswellia serrata Roxb.), or Guggulu (Commiphora wightii Arn.) can be started so that only few of the cases actually turn up as a case of post-chikungunya chronic inflammatory rheumatism. Similarly, dengue fever usually causes rapid decrease in platelet count and lasts with prolonged debility. In these cases of dengue, along with the antipyrexial drugs, drugs that promote hematopoiesis especially help in the platelet formation can be added.

In nutshell, researches can be planned as prospective or retrospective cohort studies where either to study the role of certain etiological factors or to establish the role of potent herbs in the prevention of viral infections proceeding with long-term effects. Although many practices are prevailing in Ayurveda regarding it, evidence-based guidelines are to be established. Efforts have been undertaken for developing guidelines for the prevention of non-communicable disease, but there is also need for initiating thought process to smartly and efficiently tackle communicable diseases, especially new emerging viral diseases.

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