

Disease Re-Emergence through Emerging Microbes

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India is a land of variety of cultures with different people having different living styles. The twenty-nine states and seven union territories of the country face extreme variations in the climate in a year of 365 days. This leads to development of optimum weather conditions for some pathogenic micro-organisms to become active. Hence, people with different life-styles (low-income, middle-income and high-income) depending upon their hygiene practises, healthy eating habits, cleanliness in and around the households and workplaces become targets for those pathogenic microorganisms which are capable of spreading infectious diseases. Similarly, one such outbreak has been occurred in Karnataka in the beginning of this year.

Kyasanur Forest Disease (KFD) outbreak has been a cause of worry for the people of the south India. This disease is also called "Monkey Fever" which is caused by *FFD Virus*. The virus was first identified in 1957, when isolated from a sick monkey from Kyasanur forest in Karnataka. Since then, each year 400-500 cases have been known each year. Transmission- The disease is transmitted through the vector *Hemaphysalis spinigera* (ticks) which acts as reservoir for the virus. The ticks infect the animals like monkeys, shrews and rodents. Therefore, the disease is transmitted to humans after a tick bite or contact with an infected animal. It is important to note that there is no person-to-person transmission. The process of transmission is shown in figure 1. The disease spreads in dry season from November to June mainly in Southern parts of India.

Symptoms

The symptoms of KFD begins with chills, fever and headache. There can be severe muscle pain with vomiting; gastrointestinal infections and bleeding problems. As the infection continues, the patients experience low blood pressure and low platelet counts. Also, there is fever, neurological problems, mental disturbance and vision defects [1].

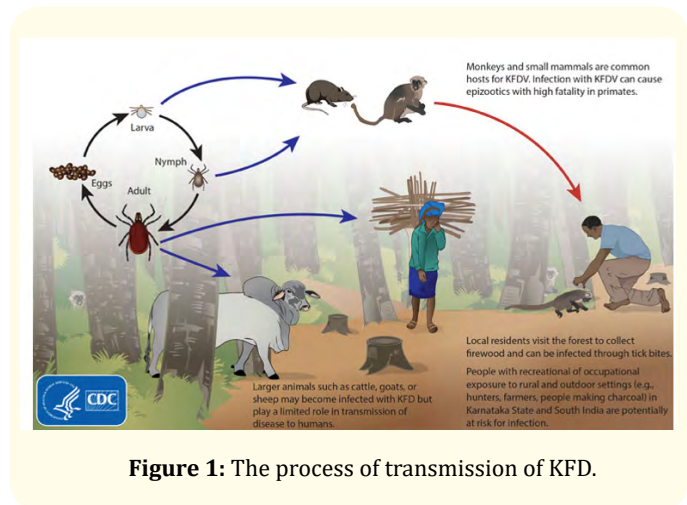


Figure 1: The process of transmission of KFD.

Conclusion

For prevention of KFD, there is no vaccination developed, therefore, some precautionary measures can be taken like wearing full sleeve clothes in the areas where ticks are endemic; using insect repellents; maintenance of hygiene and hydration and hospitalization in case of high fever for more than two days. The process of emerging of microbes cannot be controlled as there are infinite species of vectors occurring in the environment. Each microbe has its separate requirement of optimum conditions to become active for the spread of diseases. But, by taking certain precautions at individual level, numerous outbreaks can be prevented. If all the individuals act towards preventing sudden outbreaks by following the government guidelines for a particular disease and using resources at a sustainable level, keeping in mind the effect of a resource on environment and individual's health, then there is a possibility to decrease the spread of unwanted vector causing diseases.

Bibliography

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