

Perspective

Note on cause and transmission of zoonotic diseases

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DESCRIPTION

Zoonosis refers to the transmission of disease between animals and humans. Such diseases are called Zoonotic Diseases. Animals can sometimes carry harmful germs that can spread to humans and cause illness these are known as zoonotic diseases or zoonoses. Zoonotic diseases are caused by harmful viruses such as viruses, bacteria, parasites, and fungi. These germs can cause many kinds of disease in humans and animals, from mild to severe illness and even death. Animals can sometimes look healthy even if they carry germs that can make people sick, depending on zoonotic disease. Zoonotic diseases are very common, both in the United States and around the world. Scientists estimate that more than 6 out of 10 infectious diseases in humans can be transmitted to animals, and that 3 out of four new or emerging infectious diseases in humans come from animals. As a result, the CDC is working 24/7 to protect people from zoonotic diseases in the United States and around the world. The WHO in 1959 described Zoonoses as “those diseases and diseases that are naturally transmitted between vertebrates and humans”. World Zoonoses Day is celebrated annually on July 6 to raise awareness of zoonotic diseases, how to prevent them, and what steps to take when they are exposed.

Transmission of zoonotic diseases

Zoonotic diseases are transmitted in a variety of ways. The risk of infection is increased due to the increase in transition areas within the surrounding ecosystems when forests are cleared for agricultural purposes. This is because the surrounding area is teeming with wildlife. Some of the most common ways of transmitting disease are:

- **Direct zoonose:** These are transmitted from an infected vertebrate animal to the affected person (male) by direct contact, by contact with a fomite or by mechanical vector for e.g. Rabies.

- **Cyclozoonoses:** These require more than one vertebrate species, but no invertebrate animals to complete the agent's life cycle. E.g. Echinococcosis.

- **Metazoonosis:** These are organically transmitted through invertebrate vectors, where the agent replicates and/or develops and there is always a prepatent period before being transferred to another vertebrate. Eg. disease.

- **Saprozoonosis:** These require a herd of invertebrates and non-animal growing areas such as soil, and plants to develop an infectious agent for e.g. cryptococcosis.

- Bacteria are organisms that cause the disease. These are the five main types: germs, viruses, fungi, protozoa, and worms.

- Vector is organisms that do not cause the disease themselves but spread the disease by transmitting the virus from one animal to another. Eg. Bats in the case of NIPAH virus and mosquitoes in the case of Malaria.

Causes of zoonotic diseases

Zoonotic diseases can be transmitted from animals to humans in many ways usually; people with weakened immune systems are at risk. A few of the causes of zoonotic diseases are:

1. Deforestation may be a major factor as it increases communication between humans and wildlife.
2. By direct contact with body fluids such as blood, saliva, etc. an infected animal or human.
3. The disease can also be transmitted by eating contaminated or contaminated food.
4. Global climate change, overuse of antimicrobials in medicine, and overgrown farmland can also contribute to the spread of Zoonotic diseases.

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