



Lumpy skin disease and its emergence in India

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Abstract

Lumpy skin disease (LSD) is an infectious viral disease that affects cattle and water buffaloes, causing significant economic losses in the livestock industry. The disease has spread rapidly in recent years, and it has emerged as a significant concern in India. This article provides an overview of LSD, its symptoms, transmission, and preventive measures, with a focus on the emergence of LSD in India. It also discusses the challenges faced by the government and the livestock industry in controlling the disease and highlights the need for effective control measures.

Introduction

Lumpy skin disease (LSD) is a viral disease that primarily affects cattle and water buffaloes. The disease is caused by the Capripoxvirus, which belongs to the Poxviridae family. LSD was first reported in Zambia in 1929 and has since spread to many countries in Africa, the Middle East, and Europe. The disease causes significant economic losses in the livestock industry due to decreased milk production, weight loss, and the cost of treatment. Moreover, LSD is a notifiable disease, and its presence can result in trade restrictions on affected countries.

In recent years, LSD has emerged as a significant concern in India. The disease was first reported in Odisha in May 2019 and has since spread to many states in India, including Maharashtra, Chhattisgarh, and Telangana. The emergence of LSD in India has raised concerns about the potential economic losses and the impact on food security in the country.

Symptoms

The symptoms of LSD include fever, loss of appetite, and the formation of nodules or lumps on the skin, which can be painful and lead to secondary infections. The nodules can appear on various parts of the body, including the head, neck, and limbs, and can cause significant damage to the skin and



underlying tissues. The disease can also lead to conjunctivitis, respiratory distress, and abortion in pregnant animals.

Transmission

LSD is primarily transmitted through direct contact with infected animals or contaminated objects such as equipment, feed, and water troughs. The disease can also be spread by biting insects such as mosquitoes and ticks. The virus can survive for long periods in the environment, making it difficult to control the disease.

Preventive measures

There is no specific treatment for LSD, and prevention is the most effective strategy for controlling the disease. The following measures can help prevent the spread of LSD:

- Quarantine of infected animals
- Movement restrictions and controls on animal movements
- Use of disinfectants on equipment, vehicles, and other objects
- Vaccination of susceptible animals
- Good hygiene practices, including hand washing and disinfection of clothing and footwear.

Challenges

The emergence of LSD in India has posed several challenges for the government and the livestock industry. One of the significant challenges is the lack of awareness among farmers and the general public about the disease and its prevention. Another challenge is the shortage of vaccines and the high cost of vaccination. Moreover, the disease has spread rapidly in many states, making it difficult to control and contain.

Lumpy skin disease (LSD) is a highly infectious viral disease affecting cattle and water buffalo. It is caused by a Capripoxvirus and is transmitted by blood-feeding insects such as mosquitoes and ticks, as well as through direct contact with infected animals or contaminated materials. LSD is characterized by the formation of nodules or lumps on the skin, which can cause discomfort, reduce milk production, and even lead to death in severe cases.

The emergence of LSD in India is a cause of concern for livestock producers and veterinary authorities. The first case of LSD in India was reported in 2019 in the state of Maharashtra, and since then, the disease has spread to other states in the country. The outbreak of LSD in India has highlighted the need for effective disease surveillance, prevention, and control measures.

Prevention and control of LSD in India require a multidisciplinary approach, involving collaboration between veterinary authorities, farmers, and other stakeholders. Vaccination is considered



the most effective control measure against LSD. India has already started a mass vaccination campaign in affected areas to control the spread of the disease. In addition, strict quarantine measures, animal movement restrictions, and insect vector control are essential to prevent the spread of the disease.

In conclusion, LSD is a serious threat to cattle and buffalo production in India. The emergence of the disease in the country highlights the importance of disease surveillance, prevention, and control measures. The implementation of effective vaccination campaigns, quarantine measures, animal movement restrictions, and insect vector control is crucial to prevent and control the spread of the disease. Further research is also needed to understand the epidemiology of LSD in India and to develop more effective prevention and control strategies.

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