Lumpy skin disease — A potential downfall of national economy

Ume Habiba, Radeyah Waseem, Muhammad Sheheryar Hussain

Madam, the Lumpy Skin Disease, initially endemic in Africa and widely spreading to encompass the Middle East and other regions, finally has Pakistan in its grasp. It has emerged in Sindh and South Punjab, wreaking havoc in Sindh and infecting more than 20,250 animals, with more than 50 deaths being reported.[1] Internationally, the Southern, Eastern, and Southeastern countries faced economic losses as high as USD 1.45 billion due to this disease.[2] Its long-lasting and deplorable impact on the economy has been considered a prominent infection of livestock by The World Organization for Animal Health (OIE). Despite low associated mortality of 10%, it has a consequential worldwide morbidity rate of about 5-45%.[3]

Transmitted by an arthropod vector, LSD is a vector-borne viral disease, which largely targets cattle including water buffaloes. The virus is shed in body secretions involving the infected animal's tears, saliva, semen, and milk.[4] The disease is characterized by a high grade, persistent fever, multiple skin nodules, lymphadenitis, a decline in milk yield, orchitis, and abortion. The economic implications encountered by farmers in the afflicted areas include low milk yield, poor skin and hide quality, and consistent degenerative thinness of animals. Although the entire cattle industry suffers from economic losses, small-scale farmers endure the greatest loss.

Despite the low animal-to-human transmission, probability, the high economic losses incurred require drastic steps to prevent the further spread of the disease among cattle. Mass awareness programmes among farmers should be promptly implemented, and vaccination drives should be promptly scheduled. Insect repellents and vector traps should be made available on a large scale. Steps must be taken to properly set isolation areas following the standard health protocols for infected livestock. Complications caused by the disease can be effectively treated by the usage of antimicrobials, anti-inflammatory medications, supportive therapy, and antiseptic solutions. Severely infected animals should be culled in a remote area following international standards. Highly effective clinical surveillance is required for timely detection and isolation of a suspected case.[5] Although there is no documented proof of transmission to humans, consumers should preferably avoid dairy products and meat before complete eradication of the disease. We humbly request the concerned health department to take timely measures before an unprecedented loss is incurred and promote the national production of vaccination that is easily obtainable by farmers of all economic backgrounds.

4th Year MBBS Student, Dow Medical College, Karachi, Pakistan.
Correspondence: Ume Habiba. Email: habiba.khanbarrrech@gmail.com
DOI: https://doi.org/10.47391/JPMA.6570

Disclaimer: None to declare.

Conflict of Interest: None to declare.

Funding Sources: None to declare.

References

1. Siddiqui T. Over 20,000 cattle affected by lumpy skin disease in Sindh. News Release. The Dawn Media Centre. [Online] 2022 [Cited 2022 March 10]. Available from URL: https://www.dawn.com/news/1678988
2. Roche X, Rozstalnyy A, TagoPacheco D, Pittiglio C, Kamata A, Beltran Alcrudo D, et al. Introduction and spread of lumpy skin disease in South, East, and Southeast Asia: Qualitative risk assessment and management. Rome, Italy: Food and Agriculture Organization of the United Nations; 2020.
3. Tuppurainen ES, Venter EH, Coetzer JA. The detection of lumpy skin disease virus in samples of experimentally infected cattle using different diagnostic techniques. Onderstepoort J Vet Res 2005;72:153-64.
4. Khan YR, Ali A, Hussain K, Ijaz M, Rabbani AH, Khan RL et al. A review: Surveillance of lumpy skin disease (LSD) a growing problem in Asia. Microb Pathog 2021;158:105050. doi: 10.1016/j.micpath.2021.105050
5. Tuppurainen ES, Alexandrov T, Beltrán-Alcrudo D. Lumpy skin disease – A manual for veterinarians. [Online] 2022 [Cited 2022 March 10]. Available from URL: https://www.fao.org/3/i7330en/I7330EN.pdf