



Economic Impacts of Infectious Diseases in Veterinary Dermatology

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DESCRIPTION

Emerging Infectious Diseases (EIDs) pose a significant threat to both human and animal health. Veterinary dermatology is a field of veterinary medicine that focuses on the diagnosis and treatment of skin diseases in animals [1]. In recent years, there has been an increasing concern about EIDs in veterinary dermatology. This essay will explore the emergence of EIDs in veterinary dermatology and their impact on animal health.

EIDs are diseases that have recently appeared in a population or are increasing in incidence or geographic range [2]. They are caused by newly identified or previously unknown infectious agents, or by known agents that have acquired new virulence or become resistant to treatment [3]. The emergence of EIDs in veterinary dermatology is a result of a complex interplay between various factors, including changes in animal management practices, global trade and travel, and climate change.

One of the significant challenges of EIDs in veterinary dermatology is the difficulty in diagnosis. Many of these diseases have similar clinical presentations to existing skin diseases, and a definitive diagnosis can be challenging to make [4]. Furthermore, some EIDs can present with atypical clinical signs or be asymptomatic, making them even more challenging to identify. This highlights the importance of a thorough diagnostic workup, including histopathology, immunohistochemistry, and molecular techniques such as PCR [5].

Another significant challenge of EIDs in veterinary dermatology is their zoonotic potential. Many of these diseases are transmissible from animals to humans, posing a significant public health risk [6]. For example, the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) responsible for the COVID-19 pandemic is believed to have originated from bats and was transmitted to humans through an intermediate host, possibly a pangolin. The emergence of SARS-CoV-2 highlights the importance of understanding the zoonotic potential of EIDs in veterinary dermatology and implementing measures to prevent their spread to humans [7].

The emergence of EIDs in veterinary dermatology has also led to a re-evaluation of existing disease control measures. In many cases, traditional control measures such as vaccination and antimicrobial use may not be effective against EIDs [8]. Therefore, there is a need for novel disease control strategies, such as the development of new vaccines and therapies, as well as improved biosecurity measures to prevent the spread of these diseases.

One of the significant EIDs in veterinary dermatology is canine leishmaniasis. This is a parasitic disease caused by the protozoan parasite *Leishmania spp.* and transmitted by sand flies. Canine leishmaniasis is endemic in many parts of the world, including the Mediterranean region, South America, and parts of Asia [9]. The disease can present with a wide range of clinical signs, including skin lesions, lymphadenopathy, and renal disease. Treatment of canine leishmaniasis can be challenging, and there is currently no vaccine available. Prevention of the disease relies on insect control measures and avoiding exposure to sand flies.

Another significant EID in veterinary dermatology is Cutaneous and Renal Glomerular Vasculopathy (CRGV), also known as Alabama Rot. This is a recently identified disease that affects dogs and is characterized by the development of skin lesions, followed by acute kidney injury [10]. The exact cause of CRGV is unknown, but it is believed to be associated with exposure to a toxin produced by certain bacteria or fungi. The disease was first identified in the United Kingdom in 2012 and has since been reported in other parts of Europe and the United States. Treatment of CRGV is supportive, and early diagnosis is critical for a successful outcome.

In conclusion, the emergence of EIDs in veterinary dermatology poses a significant threat to animal health and highlights the need for a One Health approach to disease control. The close collaboration between veterinarians, physicians, and public health officials is crucial in identifying

REFERENCES

1. Schröder JM. Antimikrobielle peptide: effektormoleküle der haut als abwehrorgan. *Hautarzt*. 2002;53:424-35.

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Received: 01-Mar-2023, Manuscript No. TPMS-23-20696; **Editor assigned:** 06-Mar-2022, Pre QC No. TPMS-23-20696 (PQ); **Reviewed:** 20-Mar-2023, QC No. TPMS-23-20696; **Revised:** 27-Mar-2023, Manuscript No. TPMS-23-20696(R); **Published:** 03-Apr-2023, DOI: 10.35248/2329-9088.23.11:302.

Citation: Bravo W (2023) Economic Impacts of Infectious Diseases in Veterinary Dermatology. *Trop Med Surg*.11:302.

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2. Shephard KL. Functions for fish mucus. *Reviews in fish biology and fisheries*. 1994;4:401-29.
3. Smith VJ, Fernandes JM. Antimicrobial peptides of the innate immune system. *Fish defenses*. 2009;1:241-75.
4. Sung WS, Lee J, Lee DG. Fungicidal effect and the mode of action of piscidin 2 derived from hybrid striped bass. *Biochem Biophys Res Commun*. 2008;371(3):551-5.
5. van der Marel M, Adamek M, Gonzalez SF, Frost P, Rombout JH, Wiegertjes GF, et al. Molecular cloning and expression of two β -defensin and two mucin genes in common carp (*Cyprinus carpio* L.) And their up-regulation after β -glucan feeding. *Fish & shellfish immunology*. 2012;32(3):494-501.
6. Vernau W, Moore PF. An immunophenotypic study of canine leukemias and preliminary assessment of clonality by polymerase chain reaction. *Vet Immunol Immunopathol*. 1999;69(2-4):145-64.
7. Christopher MM, Hotz CS, Shelly SM, Pion PD. Use of cytology as a diagnostic method in veterinary practice and assessment of communication between veterinary practitioners and veterinary clinical pathologists. *J Am Vet Med Assoc*. 2008;232(5):747-54.
8. Filgueira KD, Chalita MC, Sellera FP, Reche-Júnior A. Cytopathology of cutaneous and subcutaneous neoplasms in feline species: a retrospective study. *Acta Vet.Bras*. 2022;16(3).
9. Barry SS, Ethan DS, Michael AZ. Epithelial antibiotics induced at sites of inflammation. *Science*. 1995;267(5204):1645-8.
10. Zou J, Mercier C, Koussounadis A, Secombes C. Discovery of multiple beta-defensin like homologues in teleost fish. *Mol Immunol*. 2007;44(4):638-47.