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Sarcocystis spp. Infecting Cattle, Buffalo, Sheep, Goats and Swine

Nor Farahhanim Sayudi[a], Tengku Idzzan Nadzirah Tengku Idris[a]*

Structured Abstract

Background: Sarcocystosis is a parasitic disease that affects domestic animals including cattle, buffalo, sheep, goats, and swine, causing significant health and economic concerns in the livestock sector. The disease has a dual-host lifecycle, affecting intermediate hosts (prey) via muscle tissue infiltration and definitive hosts (predators) through the ingestion of *Sarcocystis* cysts. The purpose of this review is to highlight the prevalence, risk factors, and implications of *Sarcocystis* infection in domestic animals within Southeast Asia.

Methods: A comprehensive literature review was conducted to gather data on the prevalence, risk factors, and implications of *Sarcocystis* infection in domestic animals within Southeast Asia. Databases such as PubMed, Science Direct, and Google Scholar were utilized to identify relevant studies. The analysis of prevalence rates was focused on *Sarcocystis* infection in cattle, buffalo, sheep, goats, and swine within Southeast Asia.

Results: This study has shown the high prevalence rate of *Sarcocystis* infection, the risk factors associated with the disease, and the effect of the infection on animal health and the agricultural economy. The Southeast Asia countries involved, including Malaysia, the Philippines, Thailand, and Vietnam, have reported a widespread *Sarcocystis* infection in livestock populations, with high prevalence rates observed, reaching up to 100% in certain regions. Furthermore, the risk factors involved in the prevalence of the Philippines and Vietnam show higher *Sarcocystis* infection rates from 42% and 57% to 93% in the older and females of the intermediate host, as well as environmental conditions and climatic conditions. These factors have influenced the abundance and survival of sarcocysts in the environment and increases the transmission of infection due to animal grazing practices.

Conclusion: In conclusion, this review contributes current knowledge to enhance disease management and prevention strategies, ultimately reducing infection and promoting the well-being of animals. This review also emphasized the need for continued research, vaccine development, and diagnostic methods for early and accurate detection of infection.

Keywords: *Sarcocystis*, Sarcocystosis, Domestic animals, Southeast Asia, Prevalence

*Correspondence: tengkuidzzan@uitm.edu.my

[a] School of Biology, Faculty of Applied Sciences, Universiti Teknologi MARA, Shah Alam, Malaysia