

Seroprevalence of orf infection based on IgM antibody detection in sheep and goats from selected small ruminant farms in Malaysia

ABSTRACT

Orf is an infectious disease that affects the skin of sheep and goats resulting in lesions that reduce animal productivity. This study was aimed to determine the status of orf infection among small ruminants from selected farms in the state of the Selangor based on IgM antibody detection. Serum samples were collected from 90 goats and 90 sheep and subjected to qualitative enzyme-linked immunosorbent assay (ELISA) to measure IgM antibodies followed by chi-square analysis of the data. The result from this study showed that 33 goats (36.7%) and 7 sheep (7.8%) were positive for orf IgM antibodies, indicating higher seroprevalence among goats as compared to sheep. The risk factors such as species, breed, farm location, and history of orf, age, gender, presence of clinical signs, and farm location were shown to significantly affect the seropositivity of IgM antibodies in these species. In conclusion, this study showed that a significant number of goat populations in Selangor, Malaysia, harbor active orf infection in comparison to sheep.

Keyword: Contagious ecthyma virus; Seroprevalence; Small ruminant IgM antibody; Elisa