An enzyme-linked immunosorbent assay for the epidemiological survey of Dermatophilus congoensis infection in camels (Camelus dromedarius)

Gitao, C G

Date: 1993

Abstract

The breeding of camels (Camelus dromedarius) is especially important in arid and semi-arid areas of Africa, where drought and famine frequently occur. A number of diseases which impair camel production have recently been described, including dermatophilosis (caused by Dermatophilus congoensis). However, it is not possible to determine the prevalence of infection from clinical cases alone. An enzyme-linked immunosorbent assay has therefore been developed to determine the epidemiological prevalence of D. congoensis infection in sera of camels. Whole-cell antigen was used on microplates and the test serum was added. Horseradish peroxidase-conjugated sheep antibodies against heavy and light chains of camel immunoglobulin (Ig)G were then added, followed by substrate. The test was used to trace the antibody profile of twelve experimentally-infected camels. Peak antibody levels in serum occurred within twenty-one days following infection. It is planned to use this test to determine the epidemiological prevalence of D. congoensis infection in camels reared in a pastoral area of Kenya.