

PREVALENCE OF ANTIBODIES AGAINST SPOTTED FEVER GROUP RICKETTSIA, MURINE TYPHUS, AND Q FEVER IN ZAMBIA

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La prévalence d'anticorps contre *Rickettsia conorii*, *Rickettsia typhi* et *Coxiella burnetii* a pu être relevée dans plusieurs pays africains. Bien que ces observations confirment la présence de rickettsioses sur le continent africain, aucun rapport sur la situation épidémiologique de cette zoonose en Zambie n'a été publié. La présente étude vise donc à clarifier la prévalence de trois rickettsioses en Zambie chez l'homme (377 échantillons de sérums humains) en utilisant un test indirect d'immunofluorescence. La prévalence des anticorps contre *Rickettsia conorii*, *Rickettsia typhi* et *Coxiella burnetii* a été de 15,9%, 5,0% et 8,2% respectivement. Les taux de séropositivité pour *Rickettsia conorii* et *Coxiella burnetii* dans les zones occidentales et orientales du pays ont été plus élevés que dans le nord de la Zambie. Compte-tenu du mode d'élevage plus extensif prévalant dans les zones orientales et occidentales par rapport à la région nord, il est suggéré que ce mode d'élevage constitue un facteur de risque pour l'infestation par *Rickettsia conorii* et *Coxiella burnetii*.

INTRODUCTION

The prevalence of antibodies against *Rickettsia conorii*, *Rickettsia typhi* and *Coxiella burnetii* has been demonstrated in some African countries (1). Although these reports indicate the presence of rickettsioses throughout the African continent, there has been no published report of an epidemiological survey in Zambia. Therefore, this study was designed to clarify the prevalence of three rickettsioses in Zambia.

MATERIALS AND METHODS

Serum samples were collected from 377 people living in northern, western, and eastern areas of Zambia. An indirect immunofluorescent antibody test was used for detecting the antibodies against rickettsioses.

RESULTS

The prevalences of antibodies against *R. conorii*, *R. typhi*, and *C. burnetii* were 15.9%, 5.0% and 8.2%, respectively. The positive rates of antibodies against *R. conorii* in western (23.1%) and eastern (16.8%) areas were significantly higher than that in the northern area (3.0%) of Zambia. The prevalence of antibodies against *C. burnetii* in western (11.8%) and eastern (7.4%) areas was also slightly higher than that in the northern area (3.0%). There was no significant difference among three areas in the distribution of antibodies against *R. typhi*.

DISCUSSION

The results of this study suggest that *R. conorii*, *R. typhi* and *C. burnetii* are all spread widely in Zambia, although the prevalence of *R. conorii* and *C. burnetii* appears to be especially high in the cattle-breeding areas of Zambia. More intensive studies on the Rickettsioses in Zambia should be pursued.

BIBLIOGRAPHY

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