RECOVERY AND IDENTIFICATION OF BESNOITIA AND OTHER COCCIDIA FROM CAT FAECES AROUND KABETE IN KENYA

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RECUPERATION ET IDENTIFICATION DES OVOCYSTES BESNOITIA ET D'AUTRES COCCIDIES DES FECES DE CHATS DANS LES ENVIRONS DE KABETE AU KENYA

Résumé
Dans une étude portant sur l'infection coccidienne naturelle des chats dans les environs de Kabete, 50 échantillons de fèces de divers chats ont été examinés en vue de détecter des ovocestes coccidiens. Des ovocestes de Besnoitia wallacei (4%) ont été recueillis pour la première fois au Kenya. On a aussi récolté des ovocestes de Isospora felis (66%), Isospora rivolta (44%), Sarcocystis muris (4%) et Toxoplasma gondii (12%). Les ovocestes Besnoitia avaient une forme sphérique puis ellipsoïdale et mesuraient 16,6 à 14,5 mm de diamètre. 32 souris, 12 rats et 2 lapins inoculés par voie orale avec des ovocestes Besnoitia développaient des kystes caractéristiques de tissus. Deux chats nourris de carcasses de souris et de rats infectés excrétaien des ovocestes Besnoitia dans les fèces du 12ème au 30ème jour après l'infection.

Summary
In a study on the natural coccidial infection in cats around Kabete, fifty faecal samples from different cats were examined for coccidian oocysts. Oocysts of Besnoitia wallacei (4%) were recovered for the first time in Kenya. Oocysts of Isospora felis (66%), Isospora rivolta (44%), Sarcocystis muris (4%) and Toxoplasma gondii (12%) were also recovered. The Besnoitia oocysts were spherical to ellipsoid in shape and measured 16.6 by 14.5 mm in diameter. Thirty two mice, 12 rats and 2 rabbits orally inoculated with Besnoitia oocysts developed characteristic tissue cysts. Two cats fed on infected mice and rat carcasses shed Besnoitia oocysts in faeces from day 12 to day 30 of infection.

INTRODUCTION
Besnoitia is a tissue cyst-forming coccidian parasite with a wide range of natural and experimental intermediate hosts. The final host has been identified as the domestic cat for B. besnoiti, B. darlingi and B. wallacei.

Besnoitia was first described from cattle infection in France. To date, at least six species have been identified in various parts of the world. Besnoitia bennetti of horses, burros and donkeys has been reported in Europe, America and Africa. In South-West Europe, Africa and Asia, B. besnoiti occurs in cattle and wild ungulates. Lizards and opossums harbour B. darlingi in America. In North America, B. jellisoni of kangaroo rats, mice and opossum has been described. There are reports of B. tarandi of reindeer and caribou in America and Europe whereas B. wallacei of mice and rats has been reported in America, Japan, New Zealand and Australia.

Besnoitia species are mainly identified by their characteristic polyzoic cysts with thick periodic acid schiff (PAS) positive walls. The oocyst morphology and sizes, geographical distribution, host specificity and serological tests may also be used to identify and differentiate between species.

The objective of this study was to recover and identify coccidian oocysts from the cat in natural infections around Kabete (Kenya). It is hoped that the additional information would help in the further understanding of the epidemiology of coccidial infection in cats in Kenya.