

Isolation of *Besnoitia wallacei* in Kenya

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Abstract

The development of *Besnoitia wallacei* was studied in 13 cats fed on tissues of mice and rats previously infected with *B. wallacei*. The cats were serially killed between Day 1 and Day 16 of infection, and histological sections from the liver and intestines were examined. Asexual stages were seen in both the small intestines and the liver between Day 6 and Day 16 post-infection. Mature microschizonts in intestinal epithelial cells measured $22.6 \mu\text{m} \times 14.7 \mu\text{m}$ ($n=15$). Macroschizonts in intestinal lamina propria measured $66.6 \mu\text{m} \times 50.3 \mu\text{m}$ ($n=25$). Those in the liver measured $70.9 \mu\text{m} \times 55.0 \mu\text{m}$ ($n=5$). Sexual stages were seen in epithelial cells of the small intestines only.

Key words: *Besnoitia wallacei*; Cat

1. Introduction

Besnoitia wallacei has an obligatory two-host cycle, with the cat as the definitive host and mice and rats as the natural intermediate hosts (Frenkel, 1977). Endogenous stages of *B. wallacei* in the cat have been described for the American isolate (Wallace and Frenkel, 1975; Frenkel, 1977) and for the Japanese isolate (Ito et al., 1978). This paper reports a study on the endogenous stages in the cat for a Kenyan isolate of *B. wallacei*.

2. Materials and methods

In a preliminary study on the natural coccidia infection in cats around Kabete, Kenya, faecal samples from 50 young and adult cats were examined. Oocysts of

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