Caprine besnoitiosis: studies on the experimental intermediate hosts and the role of the domestic cat in transmission

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Abstract

A study was conducted to test the infectivity of bradyzoites of a Besnoitia species infecting goats in Kenya to rats, mice, rabbits, sheep and goats. Only goats developed infection resulting in tissue cyst formation. Eighteen cats were tested for their role in transmission of this Besnoitia species. Ten of the cats were fed on goat tissues with numerous Besnoitia cysts; four cats were orally inoculated with bradyzoites and four others fed on mice and rat carcasses previously inoculated with bradyzoites. None of these cats produced Besnoitia oocysts in their faeces for 30 days.

Key words: Besnoitia sp.; Goat; Cat; Transmission

1. Introduction

The first evidence of Besnoitia infection in goats was found in dried skin sections in Kenya in 1967, but the disease existed as early as 1955 (Bwangamoi, 1967, 1968). Besnoitia cysts were later observed in lung sections (Kaliner, 1973) and in eyelids (Heydorn et al., 1984).

Clinical Besnoitia infections in goats have been reported in wild goats (Capra aegagrus) in Iran (Cheema and Toofanian, 1979) and in domestic goats (Capra hircus) in Kenya (Bwangamoi, 1989; Bwangamoi et al., 1989). In Kenya, the

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