

Public Abstract

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Graduation Term:FS 2011

Department:Biomedical Sciences

Degree:MS

Title:CYTAUXZOOM FELIS:

AN EMERGING FELINE PATHOGEN AND POTENTIAL THERAPY

Cytauxzoon felis is a blood parasite of domestic and wild cats. In bobcats, the disease usually causes mild illness, while in domestic cats the disease often causes severe illness or death. By investigating a large cat sanctuary, we determined that tigers, in contrast to what had previously been reported, can serve as asymptomatic carriers as can bobcats. Additionally, after breeding two chronically infected domestic cats we determined that perinatal transmission from an infected queen to her offspring is unlikely to be a major route of infection. The pharmacokinetics of diminazene diaceturate in healthy cats revealed that the drug had rapid absorption, a short half-life and no observed side effects at 3 mg/kg. In two separate studies we discovered that treatment of healthy carrier cats with 3 mg/kg of diminazene diaceturate twice one week apart or at 4 mg/kg once daily for five consecutive doses failed to clear chronic *C. felis* infection. Side effects were common and included salivation, vomiting, pain at injection site, weakness in the leg that had been injected, liver toxicity and protein in the urine. Diminazene diaceturate cannot be recommended at either dose for clearance of chronic *C. felis* infection.