

CYTAUXZOOM FELIS:  
AN EMERGING FELINE PATHOGEN AND POTENTIAL THERAPY

Kristin Lewis

Leah Cohn, Thesis Advisor

ABSTRACT

*Cytauxzoon felis* is a pathogenic hemoprotozoal parasite of Felidae. We were able to document, via both piroplasm detection and PCR analysis, a chronic carrier state in naturally infected captive bred tigers as well as domestic cats at an Arkansas cat sanctuary. Amplicon characterization suggests cats were infected at the sanctuary with a North American strain. Using naturally infected carrier domestic queens, we demonstrated that unlike other hemoprotozoa such as closely related *Theileria* species, perinatal transmission of *C. felis* is unlikely to be an important source of infection. Additionally, after determining basic pharmacokinetics of the antiprotozoal drug diminazene in healthy, purpose bred cats, we assessed the ability of the drug to eliminate the parasite from naturally infected cats using either a low dose (3 mg/kg twice, 1 week apart) or a high dose (4 mg/kg daily for 5 days). Neither dose eliminated parasitemia, but adverse reactions were commonly observed.