

RESEARCH NOTE

DEVELOPMENT OF MULTIPLEX POLYMERASE CHAIN REACTION FOR DETECTION OF FELINE HEMOTROPIC MYCOPLASMA IN BLOOD AND TISSUE SPECIMENS

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Abstract. A multiplex polymerase chain reaction (PCR) was developed for the detection of feline hemotropic mycoplasmas which simultaneously differentiates infections of *Mycoplasma haemofelis* (Mhf), *Candidatus Mycoplasma haemominutum* (CMhm) and *Candidatus Mycoplasma turicensis* (CMtc) in feline blood and spleen. These organisms are responsible for the cause of various pathogenicity of feline infectious anemia. These infections are difficult to be detected by microscopic examination, the most commonly used method for general laboratory diagnoses. Specific primers were designed by selected consensus 16S rDNA sequences of three distinct species. The multiplex PCR assay developed in this study was sensitive and specific with detection limit 100 copies/ μ l DNA of Mhf and CMhm and 10 copies/ μ l DNA of CMtc. No amplicons could be amplified for other blood parasites or bacterial pathogens. This multiplex PCR will allow studies of pathogenicity and the monitoring of clinical treatment.

Key words: hemotropic mycoplasma, hemoplasma, multiplex PCR, feline

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